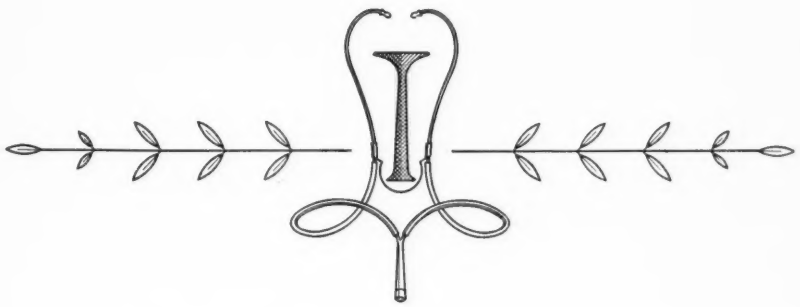
THE JOURNAL

of the

Kansas Medical Society



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VOLUME XXXVI, NUMBER 2

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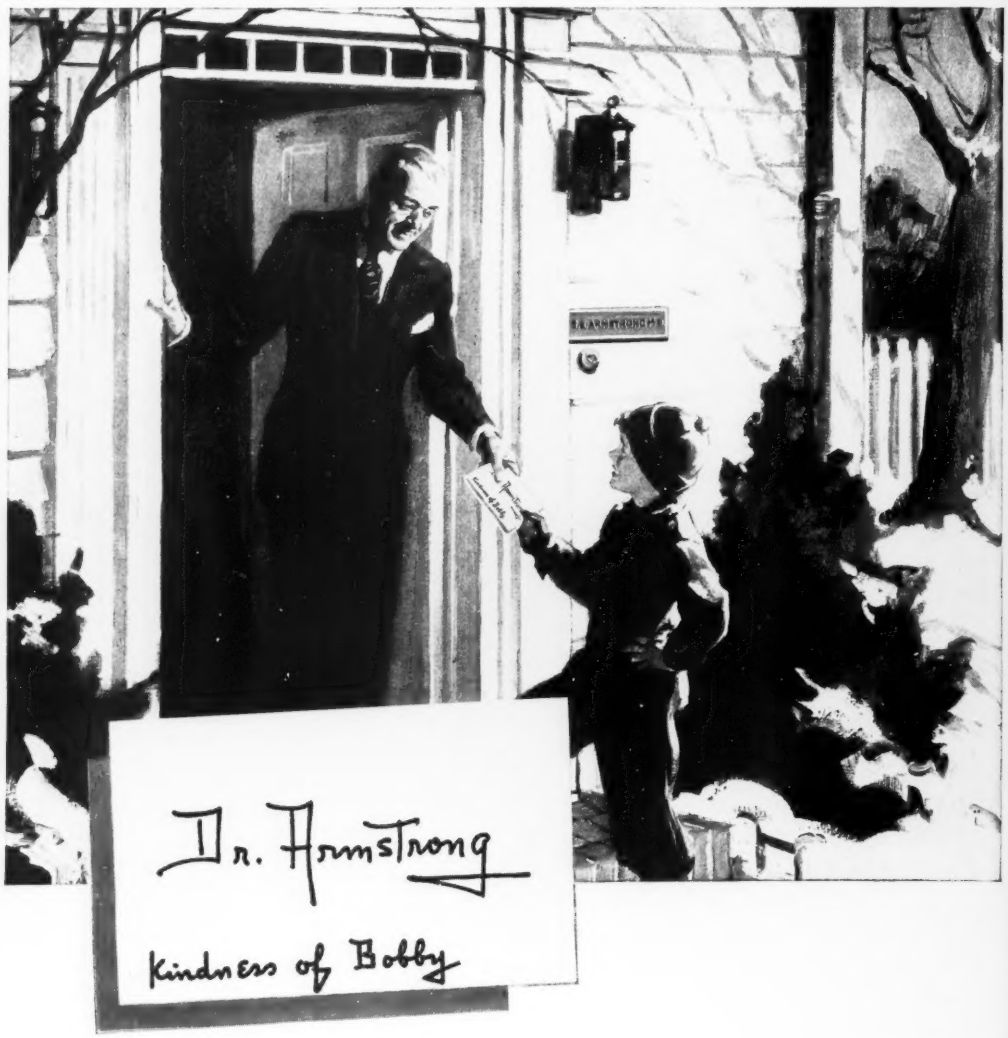

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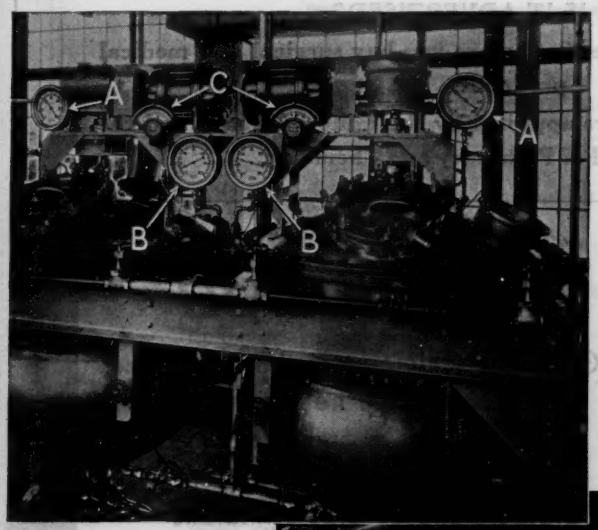
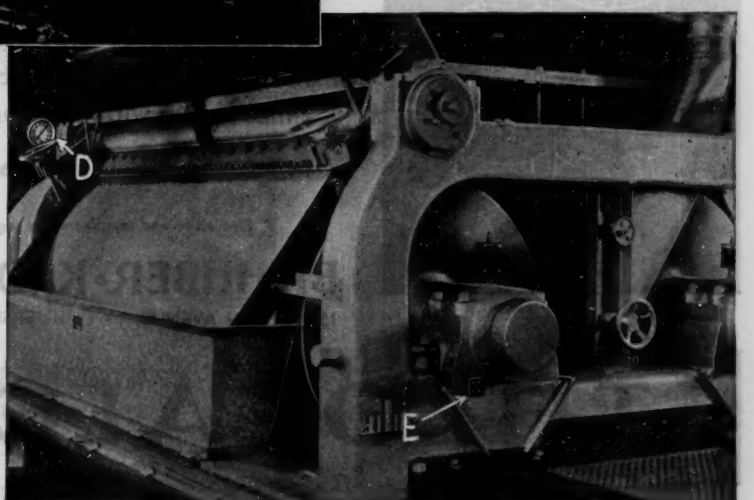


Left—Two double-jacket cookers in which Pablum is steam-cooked under rigid control. Live steam of uniform pressure and temperature flows into the cookers and displaces air above the cereal thus preventing oxidation and affording protection to vitamins and flavor. A unique paddle-knife constantly agitates the mixture so that a fresh surface is constantly presented to the steam. Note three gauges used in controlling cooking: (A) gauges maintaining uniform steam pressure in tops of cookers; (B) gauges regulating steam pressure in surrounding jackets; (C) thermometers for control of temperature (control of steam pressure and of temperature are both essential).



Right—One of many drum dryers used in the manufacture of Pablum. After the cereal mixture is steam-cooked it is dropped between revolving steam-heated rollers which roll and dry it in a uniform layer of material. Gauge (D) is used as a check on the steam pressure within the drums. Distance between them is maintained within thousandths of an inch by means of a micrometer plate (E).

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Entered as second-class matter May 2, 1914, at the Postoffice at Topeka, Kansas, under the Act of March 3, 1879. Accepted for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917. Authorized on July 2, 1918.

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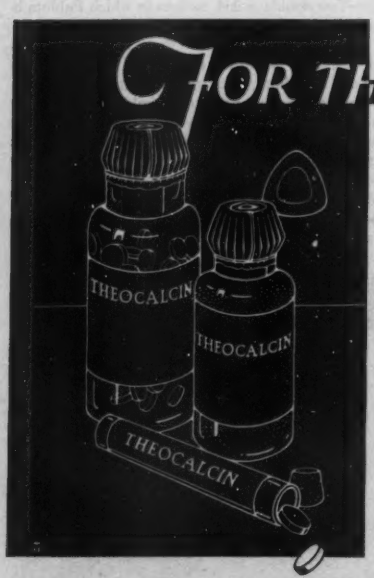

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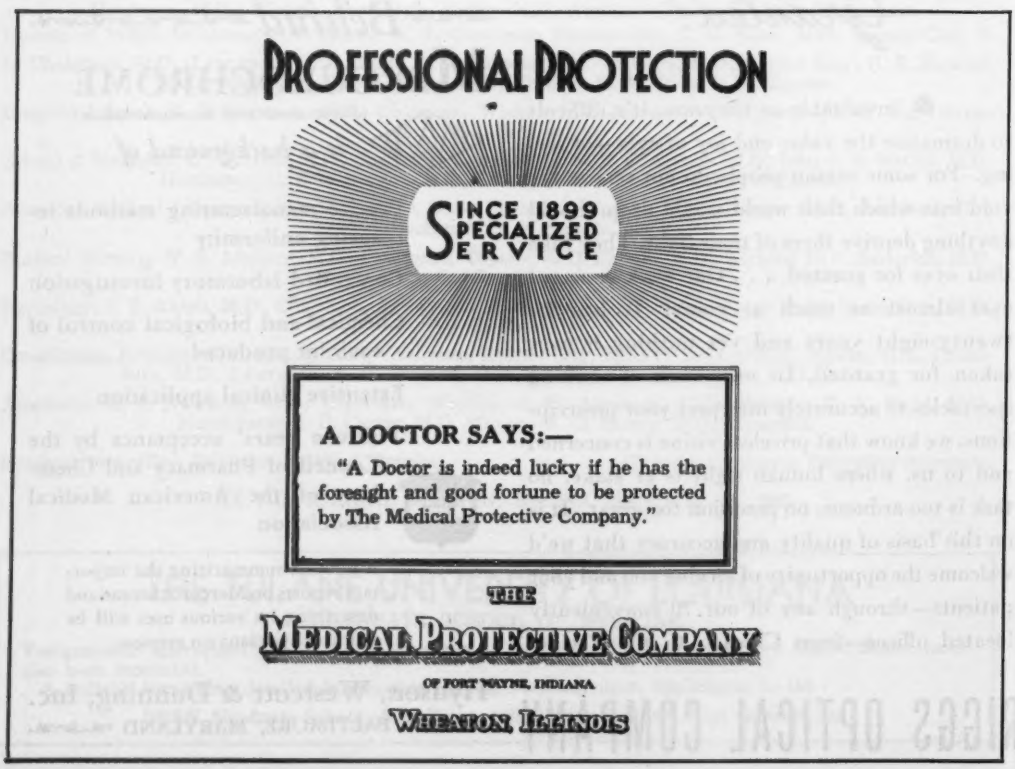
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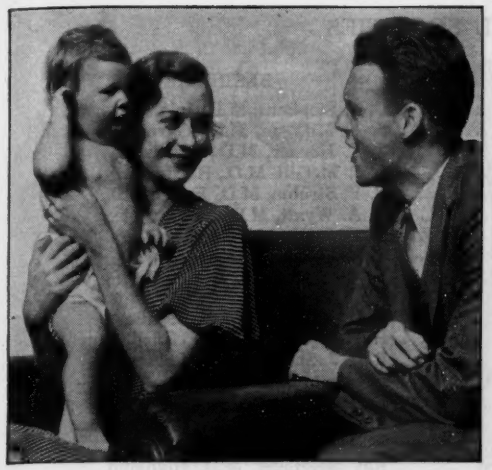

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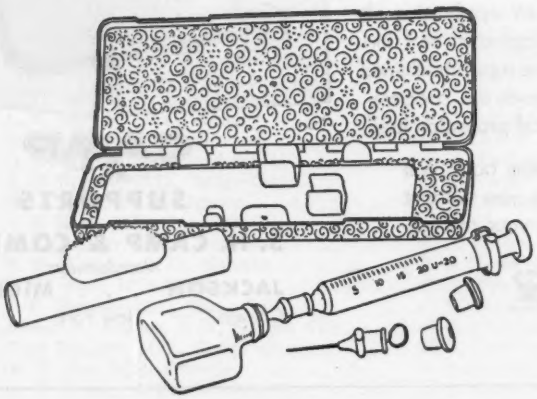

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THE JOURNAL
of the
Kansas Medical Society

VOL. XXXVI FEBRUARY, 1935 No. 2

CANCER OF THE RECTUM*

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Memphis, Tenn.

In this article you will observe a divergence from orthodox, and the chief defense of my heretical views may be that of a woman, namely: the first and last word.

A sad picture is that among those in this audience of several hundred adults, 10 per cent will die of cancer. This is an appalling statement.

A great cancer educational campaign has been in progress several years. The layman is already cancer minded and watches the lump in the breast, the skin mole, the small painful tumor on the tongue or leukoplakia in the mouth or metrorrhagia and the return of staining after the menopause. Yet he remains ignorant of a very prevalent situs of cancer; cancer that is so insidious in its early stages as to cause few symptoms. Cancer of the rectum is so often overlooked by the profession until hopeless. I hope to stimulate a more careful study of gastro-intestinal cancer by those who will follow my contentions and suggestions as to assembling statistics sufficiently comprehensive from which to draw conclusions. I should not be so dogmatic as to attempt conclusions from perhaps 200 cases. But even an erroneous opinion, if the unbiased scientific investigations of my beloved profession later reveals, can only result to the welfare of man because I have stimulated investigations.

Says Dr. Dudley Smith of San Francisco: "Cancer of the anus, rectum and recto-sigmoid constitutes about twelve per cent of all cancers in the human body and about eighty per cent of intestinal cancer." Patients put off going to the doctor for rectal symptoms, because they have been told that examinations of the rectum are very painful. This impression can be laid directly at the door of the physician because of the unnecessary pain so often inflicted. He further states the general impression that blood from the rectum means hemorrhoids. Physicians, students, nurses and the public should consider that blood from the rectum means cancer until cancer is ruled out.

Dr. Ernest Miles, chief surgeon of the London Cancer Hospital, in his address before the London Medical Society in 1925, stated that the type of carcinoma occurring in the rectum and rectosigmoid is adenocarcinoma.

There are three clinical varieties differing in physical characteristics and degree of malignancy. Namely: the papilliferous, the common adenocarcinoma and the colloid. The papilliferous type resembles an ordinary simple papilloma, extends rapidly upon the surface and soon involves the whole circumference of the bowel. Owing to the exuberance of the growth, the lumen of the bowel becomes obstructed before infiltration of the muscular coat has progressed to any considerable degree. These growths are not particularly malignant and seldom give rise to extra mural metastasis unless they have been in existence for a considerable time.

The great majority of cancers of the rectum are the common adenoid type. Usually the surface of the growth is a flattened tumor which increases in size in all directions, and although at first freely movable upon the muscular coat, soon becomes adherent to it. This occurs probably within a few months. As the growth increases, surface ulceration occurs and bleeding begins. As more of the surface circumference of the bowel becomes involved, the ulcer deepens and assumes a crater like form with nodular everted and indurated edges. These growths commonly encircle the entire circumference of the gut in from twelve to eighteen months.

The colloid or mucoid type of carcinoma is merely a degenerative stage of the preceding variety. Cancers originating in the anal canal are of the squamous type.

Metastasis, or spread, in rectal cancer is in three ways. First, by continuity of tissue; second, through the venous channels and third, through the lymphatics. There is always a precancerous stage to all cancers of the rectum

*Read at a meeting of Kansas State Medical Society at Wichita, Kan., May, 1934.

as elsewhere, and I insist that physicians should no longer be so derelict that fifty per cent of all rectal cancers are inoperable when the proctologist or the surgeon who operates them is permitted to see them.

Frequently patients ask if their rectal disease might become cancer. Even though it be a fistula, an anal ulcer or a proctocolitis, it may, through neglect, become cancer.

You will recall the reference in my previous address to the points in the gastro-intestinal tube where there is stasis, spasm and traumatism, and that these are the locations of pathological processes. Few of my cases have involved the colon above the rectosigmoid. The cecum has been the seat of cancer in only two cases. The etiology and every factor which seemed to be of etiological significance have been of interest to me; therefore, I am giving these observations for whatever may appear rational and worthy of statistical compilation.

An irrefutable fact is that we, or many of us, look without seeing, or seeing we fail to define or observe without finding the many otherwise common-place facts. Hence valuable contributions to the welfare of man pass from generation to generation. This has been the story of cancer. A simple illustration is the fact that though we have all been to the circus, and have looked with interest and sometimes with awe at the large collection of animals from the uttermost parts of the earth, yet I dare say that there are many in this audience who do not know the number of toes on the feet of an elephant.

A young lady once said to me when I was a young man, "It is the little things in life that count most with a woman." And now might I add that it is the little things that escape the casual observer which may, and I believe, do play an important role in the causation of intestinal cancer.

You will remember my statement that Dr. Dye in the Belgian Congo for thirty-five years, and Dr. Webber, another medical missionary in equitorial Africa forty years, had never seen a cancer among those tribes. If the half of this statement be true, and I do not doubt any of it, surely we have been overlooking some very important something. You who heard my address this morning have the answer already. Focal septic infection in which streptococci plays the chief role, or amebiasis or both, have been demonstrated by me in all cancers of the large intestine that it has been my privilege to examine.

If this is simply a coincidence without significance, it is at least interesting. I truly believe that when the medical profession is fully awake to the importance of this ravaging streptococcus, it will have gone a long way in the solution of the cancer problem. This granular beefy red rectosigmoid mucosa, with its marked spasm and more or less hyperplasia, will not get well unless we get rid of the focal septic infection above, which is constantly passing down for transplantation. That area, if not properly treated, must be a most likely situs for the development of cancer.

Having observed this hyperplasia in all degrees at this most prevalent situation of cancer of the intestine, I am convinced that septic infection plays a most important role. As I retrospect my cancer case histories, I make another interesting observation, namely: A number of my rectocolonic cancers developed on chronic amebic ulcerated areas of the rectum or colon. This chronic amebic ulceration had resulted in glandular hyperplasia and adenomatosis. Seldom these adenomata appear singularly, and I removed as many as a hundred of them at one time for a patient. He had suffered a most serious amebic ulceration of the colon, and died of cancer of the colon.

I will show you another case of chronic amebic ulceration and resulting multiple adenomata, that came into my hospital care from Atlanta, Ga., only a few days before he died of metastatic cancer of the lungs. The saddest picture of cancer anywhere is cancer of the rectum. It is so insidious the precancerous lesion is not felt or seen, and the fact remains that doctors have patients present themselves complaining of a little change in intestinal habits, a little unusual constipation, a little occasional loose bowels, or the passage of a little mucus or blood or both, and often times doctors have false ideas of the false modesty of their patient, when their reasonable service would be at least a careful digital examination of the rectum, and if the patient is in the so-called "cancer age", should include also a procto-sigmoidoscopic examination.

When there is an inflammatory spasm at the rectosigmoid, there will likely be spasm in the ileocecal valve area, and in some early cancers in this area the slight pain and discomfort is experienced there only.

One of the greatest surgeons of this genera-

tion suffered thus, and his metastasis in his lungs was the first clue to the true nature of his ailment. I discovered this referred pain in the ileocecal region when some years ago it was produced by a clip I applied to the upper valve of Houston.

I have actually performed proctectomies and saved two late rectal cancer cases, which had been operated two and four months respectively previously for hemorrhoids by able surgeons. Less than a month ago I removed the rectum for a lady who never noticed a symptom until two months before, and that was a little unusual constipation; and two weeks before, presenting herself for examination by her family physician, she had noticed a little sanguino-muco-purulent passage three or four times per day. Her physician very promptly referred her to me, and I found a very late cancer.

After witnessing a proctectomy for rectal cancer by Sir Gordon Watson in London and we had retired for tea, I said to him, that I had made an observation which I hated to admit, and when he inquired what it was, I told him he had either better doctors in England, or he and others had induced the doctors in England to make earlier examinations and refer their cases earlier for operation, and that at least fifty per cent of my cases were hopeless when I first saw them.

My attention on several occasions has been called to the treatment by the general practitioner and the gastro-enterologist of achylia gastrica, in these cases thorough examinations including gastro-intestinal *x*-Ray series were made, yet a few simple facts were overlooked. First, the patient was in the "cancer age" from twenty to one hundred years, losing weight and strength. Questioning elicited a change in the intestinal habits, as Rankin aptly puts it. A little more constipated or a little mucous diarrhea had supervened after a period of constipation. There might have been noticed a more muddy complexion, and members of the family have been important incriminating witnesses in these references. Finally, no digital examination had been made, or if so, the cancer had evidently been mistaken for a prostate, or a cervix, or a fibroid, or the digital examination was not such as I insist upon which is as follows:

The patient is placed first in the lateral position with thighs flexed on abdomen. The well anointed gloved finger is inserted as high as possible, while the patient is instructed to strain down as if to forcibly expel my finger. The contents of the pelvis thus come within touch. The patient is then required to stand in a moderately stooped position and the same procedure is gone through, and the sense of touch is drawn upon as the finger sweeps the gut circumference and by the latters, mobility, the pelvic cavity, including the sigmoid, may be palpated.

My experience in this grave disease goes to show the unreliability of both early symptoms, and in some instances digital examinations. Tumors of the rectum were twice mistaken by me as being cancer at first, when a history in both cases of having had the injection treatment of piles, revealed their true nature as tumors of chemically induced fibrosis surrounding pools of oil. Small adenomatous growths complicating chronic amebic ulcerations in some of my cases were already cancerous. These adenomata begin as small shot like processes of gland hyperplasia which may be single or multiple. Such a tumor may appear quite innocent, and by periglandular pressure become punched out and finally become polypoid, and may become devitalized and be broken off, while another or many others remain sessile. Then as Dr. Mummery states, "they do not all become cancerous because they don't have time; but sooner or later one or more will become cancerous."

A child with the sniffles (an allergic child) may develop polyposis. In fact I have removed a number of these tumors in the lymphoid type of children of three to ten years of age. In some of these cases we have a suspicion of a very near approach to malignancy. Some ask what is the cancer age. That is an arbitrary guess, and frankly I do not know. I have seen two young men each twenty-two with hopeless rectal cancer, and operated two women, twenty-five and twenty-six respectively.

I have already indicated that cancer of the large bowel is most often found in the recto-sigmoid portion. Rankin made in the Mayo Clinic explorations in one hundred consecutive cases of cancer, and found sixty-seven per cent of the growths were in the rectosigmoid and believes that the fact that here the longitudinal bands of the sigmoid flare out and encircle the bowel, has something to do with the most prevalent development of cancer in this locality.

The vast majority of rectal and anal cancers are adenocarcinomata, while melanomata fortunately appear to be the least frequent forms. This is the most malignant and appears usually

in the anus. It is in that fatal zone where any cancer must be operated early and by broad excision.

A man referred to me a week ago was seventy-four years old, had suffered a diarrhea for two months supposed to have been caused by a midnight supper. His doctor had been consulted two weeks later when he noticed his bowel actions were blood tinged. He had lost five pounds, as he thought due to his dieting and treatment for his diarrhea. He denied having suffered pain at any time. I could not palpate any pathology, but the sigmoidoscope enabled me to visualize a typical bleeding adenocarcinoma in the rectosigmoid area. I was able thus to report to his doctor that this old man was suffering a late cancer, involving two-thirds of the circumference of the bowel. That he was not even a fair risk on account of age, anemia and the necessity to perform the Miles' complete abdomino-perineal excision of his rectum and a part of his sigmoid. His doctor states that *x*-Ray examination seemed to indicate cancer.

I hope we have dealt at sufficient length upon etiology and symptomatology. As to diagnosis, all tumors in the rectum above the hemorrhoidal inch should be classed as suspicious tumors until either removed or biopsy has enabled the pathologist to give a definite negative answer. Myxomatorus tumors in the pelvis should be most carefully and completely excised, as sarcomatous degeneration may take place. These are mentioned because general surgeons have referred three of them for me to operate, though I considered each should have been operated by the general surgeon as much so as a pilonidal cyst. Yet I have operated a number of them also, and should be subject to criticism by the general surgeon, who unfortunately though has never learned there is a place in the sun for a proctologist. All growths in the anus, rectum and sigmoid areas should be visualized, and this can only be done with the available modern proctoscope and sigmoidoscope.

If there remains a doubt of malignancy, a biopsy can easily be taken in most cases and frozen section examination give an immediate answer. I have already referred to tumors caused by injections of chemicals into the walls of the rectum, and I will show you another case that had all the macroscopic earmarks of a late cancer of the rectum, but which was due to blastomycosis. That woman's supposed cancer is well except a resultant stricture. In another case diagnosed by palpation and visualization by myself and by an able pathologist was obstructive, involved four-fifths of gut lumen in a young woman. Therefore, I was constrained to do a complete abdomino-perineal excision at one time; this was an extensive papilloma. She is well and happy after three years, and I doubt anything else could have saved her life.*

Diverticulosis and diverticulitis we must always keep in mind when called upon to make a diagnosis in cases of acute obstruction of the colon. Dr. Mummery states that in small bowel obstruction, vomiting of the fecal type occurs almost from the onset of the crisis. Pain is usually well marked and often severe and there is usually little distension in the early stages. Such distension will be in the central part of the abdomen. In obstruction of the large bowel, distension is usually the chief symptom, and vomiting only occurs late. "Obstruction may be caused by acute cellulitic inflammation of a section of the pelvic colon due to diverticulitis." In one case an almost complete fibrous stenosis of the pelvic colon from the same cause was present, and in a number of cases diverticulosis of the pelvic colon was the cause." I operated on one case of diverticulitis with obstruction and rupture into the small bowel and into the peritoneal cavity. This case was diagnosed rectosigmoid cancer by an able surgeon. In another case I suspected sigmoid cancer and opened the abdomen with the purpose to perform a preliminary colostomy, but I excised the large diverticulum and was rewarded a good result. In another case the diverticulum ulcerated into the bladder, thus relieving the obstruction. Malignancy and death after one year resulted. This man also had chronic amebiasis.

TREATMENT

I am inclined to agree with Dr. McKenney of Buffalo who says: "One should never arouse a suspicion of cancer until a positive diagnosis has been made. There can be no greater shock to the average person than to be told he has a cancer." I may add that cancerphobia has the similar baneful effect to that of syphilophobia. And as Dr. McKenney further states: "The morale is at once shattered and all hope gone." The patient develops a disturbed metabolism, dehydration, hypochloremia and bacteremia. The urine will probably contain indican and acetone, and diacetic acid bespeaking further

*The woman whose extensive papillos-adenoma was not classed as cancer has developed a metastatic mass in the carotid region and lung metastasis.

trouble. Your patient is, by this time, unable to withstand the assault of so major an operation. It will then be days and perhaps weeks before an operation may wisely be attempted.

The *x*-Ray has no place in the treatment of cancer of the rectum and colon. Dr. Ernest Miles, chief surgeon of the London Cancer Hospital, said "He had never known it to cure any internal cancer, but he had known it to cause cancer." This has certainly been my opinion for years. The melanoma is said to be the most radiosensitive.

If the patient be young or plethoric, the spread of cancer will be earlier and more rapid and I always classify hopeful operability according to age, plethora and the extent of gut involvement by the cancer. Dr. Miles classifies them according to gut lumen involvement only, and says that if one-third of the gut lumen is involved the case is quite hopeful; if one-half the lumen is involved, the case is yet hopeful, but thereafter the mere hope which remains is in proportion to lumen involvement and hence involvement of other structures through which metastasis extends.

If the cancer is located at the rectosigmoid, the Miles' method or some modification of radical abdomino-perineal excision must be chosen. Miles demonstrated the importance of this method by showing the lymphatic gland involvement along the mesentery which must be divided down close to the base of the stalk.

In cancer which originates on a rectal valve or in one of the ampullae, if attack is made fairly early, the Mummery operation or some modification of this operation is the operation of choice because it is safer; or a simple perineal excision and bringing the gut down to form a new rectum at the normal situs. I split the perineum antero-posteriorly and carry the incision around the closed anus, dissect back the sphincter, and in three cases I recall, I excised the posterior wall of the vagina to be included in the removed mass. In two of these cases the cancer had ruptured through the recto vaginal septum to form a fistula. The peritoneum was opened in each, and the mesentery was ligated and excised as high up as possible. The gut was then brought down and the peritoneal diaphragm closed and attached to the gut by interrupted sutures. Here I wish to advocate the instillation of novacaine in the mesentery before clamping or pulling on it to any considerable degree, because I have noticed this is where you get shock. A patient will be doing nicely until traction is made on the mesentery, then will suddenly show more or less severe shock. After the mesentery is divided a considerable portion of the sigmoid colon may be brought down. The fascia and other structures are then sutured around the rectum, and the sphincters and superficial structures are sutured. I then insert two large wick drains through stab wounds made external to the sphincters into the peri-rectal space, and a third drain is placed posterior to the gut into the cavity of the sacrum. The sphincters are gently sutured to the gut laterally, and the gut is clamped and excised with a cautery. The gut is now either ligated for forty-eight hours or a large catheter is immediately inserted and the end of the gut is tied around it. When the patient has recovered from the anesthetic, the catheter is attached to the drain tube and through it a saline proctoclysis may be given if desired.

Operations for cancer have been so standardized now that it seems unnecessary to enter into details as to preoperative and postoperative care. I must say, however, in closing it will be better judgment to sustain the patient and rebuilt the fagged resistance before subjecting a patient to the most major operative surgery that I have undertaken.

Further if the patient is weak and needs sustaining resistance it is my custom to give a transfusion of blood before operating, and have a donor ready for a postoperative transfusion.

When the last word is written on cancer of the rectum and colon. I believe prevention will be that word.

The Journal A.M.A. for Nov. 3, 1934, presents experiments which were undertaken to learn whether the addition of formaldehyde to scarlet fever toxin results in the formation of a scarlet fever toxoid, nontoxic but capable of binding scarlet fever antitoxin and capable of stimulating the production of antitoxin when injected into susceptible persons. Their conclusions are: 1. Scarlet fever toxin is partially but not completely detoxified by treatment with solution of formaldehyde up to 1 per cent. The presence of unaltered toxin in the formalized preparation is sufficient to account for the immunity obtained. 2. No evidence now available justifies the assumption that there is a scarlet fever toxoid analogous to diphtheria toxoid. 3. Alum precipitates diphtheria toxin and the toxin may be demonstrated in the precipitate; but the redissolved alum precipitate from scarlet fever toxin showed no evidence of the presence of toxin. 4. The rabbit is not a suitable subject for standardization of scarlet fever toxin. 5. Since the detoxified portion of formolized scarlet fever is not antigenic, it is inferior to unmodified toxin as an immunizing agent because of the unnecessary amount of useless foreign protein which it contains.

THE CHANGING CONCEPT OF HEART DISEASE*

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The past twenty years have seen what seems to me a remarkable change in our attitude toward heart disease and I believe a review of those changes and a comparison of our views of 1935 with those of 1915 will be worth while. At my age, of course, I cannot pretend to much first-hand knowledge of what the profession thought of heart disease in 1915. At that time I was more concerned with Caesar's Commentaries and how the girl on the corner could play the piano than with pathology and the use of digitalis. However, for about fifteen years, I have been acquiring some ideas about hearts and for the past ten years have had some opportunity to test those theories.

In addition, by the comparison of textbooks of the early twenties[1, 2] with the present day ideas, by contact with those of you who were in practice twenty years ago or longer, and by the comparison of teachings of older and younger men when I was a student, I think I have a fair concept of the general views on heart disease from 1915, say to 1920. It is the change and development from those views to those of today that I want to discuss.

In 1923 I had a remarkable opportunity in helping Dr. Richard Cabot prepare the material for his book "Facts on the Heart" published in 1926.[3] We did this in Dr Cabot's characteristic methodical way by securing the record of every bit of cardiac pathology uncovered in the autopsies at Massachusetts General Hospital in Boston, going back, it seemed to me, to at least 1492. These findings were then checked with the clinical histories of these patients and conclusions drawn by Dr. Cabot. Some of these opinions seemed revolutionary at that time and were in flat disagreement with what we were still being taught in medical school. One of these ideas was the insignificance of apical systolic murmurs which up to that time were generally considered to mean mitral regurgitation. Today this is generally recognized[4, 5] but one still finds well trained men talking about murmurs as though this was a diagnosis of heart disease.

I think most of us in the last few years have grasped the important point that a heart can function normally with several different murmurs but that the patient cannot function normally in many instances if he has been told he had a "leakage" and especially if he has been taken from school as a child and made into a cardiac invalid. Berger[6] of Kansas City puts it this way in a recent article on the care of the cardiac child: "It is poor psychology to leave a child conscious of anything that restricts and sets him apart from his fellows." I do not mean by this to minimize the period of protection necessary after rheumatic fever or the exanthemata. I mean simply that the patient should be thoroughly protected against damage to his heart as a whole at these times and that this be explained to him and to his parents as a temporary check on his activities exactly as he would limit the use of a broken arm and a condition no more liable to leave permanent damage than a properly treated fracture. If the infection, whether it be rheumatic fever, diphtheria, pneumonia, or what not, is going to damage a valve, I doubt very much if rest will very greatly influence that pathology favorably or otherwise, but I do believe that the weakened heart muscle can be brought back to normal, or nearly so, after the pan-carditis that affects it has subsided or the nervous impulses reaching it from infections elsewhere, have ceased.

When I find one of these innocent murmurs I protect myself by telling the patient of its existence because I know some one else is liable to do so later. But at the same time I explain its insignificance and carefully refrain from mentioning leakage of the heart. Too many laymen know nowadays that leakage of the heart is a permanent condition. It usually takes three careful examinations and explanations of insignificance to overcome one careless diagnosis of "leakage of the heart" based on possibly, a transitory murmur.

In my work in 1923 under Cabot, the most outstanding fact to me was the absolute lack of pathology in many instances where the diagnosis of valvular defects had been made before death. Occasionally, of course, the converse was true, that cardiac pathology (and I have in mind especially valvular lesions) was present when no signs had been recorded during life[3, 7]. The principal lesson, however, was that many organically normal hearts have supposed signs of pathology, such as murmurs, particularly during disease of one sort and another. It must be remembered that this study was made

*Read before the Golden Belt Medical Society at Abilene, Kansas, January 10, 1935.

entirely on cases that were sick enough from some cause or other to reach the autopsy table.

At the 1933 meeting of the American Medical Association, Levine[8] gave an excellent discussion of the clinical significance of the systolic murmur. In his opinion a systolic murmur of more than minimal intensity occurring without exercise is an indication of pathology somewhere. He found it most often to be hypertension, anemia, hyperthyroidism, fever, or tachycardia. With other signs of cardiac disease or with a history of rheumatic fever he considers a systolic murmur of real significance although not necessarily an indication for restriction of activity. Some cases he feels will later develop subacute bacterial endocarditis, hypertension or true endocarditis. Since there is little or nothing we can do to forestall these conditions the early recognition of the preceding murmur does not impress me as important. Work is at present being done in certain clinics with phonocardiograms which shows promise of helping distinguish organic from functional murmurs but this is still experimental[4].

Cabot and other iconoclasts have pretty well disposed of the myth of simple mitral regurgitation[8, 9] leaving us with a fairly clear cut picture of mitral stenosis or more properly mitral disease since few of us are competent to say whether stenosis alone or stenosis and regurgitation exist. The diagnosis of this condition is based not alone on presystolic rolls and thrills, but on a consideration of the circulation as a whole proceeding from the mitral flush to the increased liver dullness and other factors.

Similarly with aortic regurgitation whether of luetic or rheumatic origin, and again we usually have a combined regurgitation and stenosis making the better term aortic disease[9, 10]—again in aortic disease—our diagnosis is based more on pulse pressure with the sphygmomonometer, capillary pulsation and such circulatory manifestations than on diastolic murmurs alone. Pure aortic stenosis may exist but its pathology is hard to picture and I believe seldom found, although recent work of McGinn and White[11] would indicate it to be more common than usually supposed. Marchbanks[9] of Pittsburg also believes aortic stenosis a common late sequel to rheumatism although he admits the presence of some degree of regurgitation in most cases. Except in congenital heart disease—and here my experience is so trivial that I dislike to bring the subject up—lesions of the pulmonary and tricuspid valves are so rare as to be negligible. They occur apparently in rheumatic endocarditis but never seem to play a role of any importance in comparison to the lesions of the mitral and aortic valves[9].

This leaves us then with three common types of endocarditis. (1) Rheumatic mitral disease, (2) rheumatic aortic disease and combinations of these lesions and (3) luetic aortic regurgitation with or without disease of the aorta, and this latter is usually considered as arising in the aorta and not in the aortic valve. This is a great deal different from the eight possibilities of stenosis or regurgitation in each of the four valves which our early physical diagnosis led us to believe possible.

About the same time that this tearing down process was going on, Sir Thomas Lewis and others were emphasizing the rhythms of the heart and by means of polygraphs and astute clinical judgment clarifying our ideas regarding fibrillation, flutter, the tachycardias, heart block and premature contractions. So much has been added to this realm of cardiology by the more recent and technical studies of the electrocardiograph that we are liable to lose sight of the fact that fifteen and twenty years ago Mackenzie, Allbutt, Lewis and other essential clinicians with their clumsy polygraphs were doing the spade work for all this marvelous technical improvement. Situated as I have been for some six years away from electrocardiographs and with too much drouth and depression to purchase one for my own good I have often wished I had started medicine a little earlier and with a little more mechanical ingenuity so that I could still use a polygraph without feeling anachronistic.

Without frequent and well-timed use of the electrocardiograph, recognition of bundle-branch block, the differentiation of some fibrillations and flutters, determinations of the auricular or ventricular origin of premature contractions and the like is beyond us country practioners.[12, 13] But I like to feel that the majority of the important conditions of this type can be picked up clinically before they become desperate; possibly not well differentiated but at least a fair diagnosis made and some effort at prognosis supplied. This ideal may be the attempt of small men to step in the long strides and fill the large boot marks made by the giant Mackenzie in his early country practice but at least it is a step forward from the old category of regular pulse, irregular pulse and totally ir-

regular pulse which some of you can remember.

The next step I wish to discuss is I believe the most important. It is the conception of the heart as primarily a muscular pump depending more on the integrity of that muscle for its proper function than on perfect valves or perfect timing. Analogies are often misleading but the comparison to a gasoline engine is too apt to pass up. Leaky valves in a motor will reduce power and improper timing of the spark gives poor performance, but such a damaged engine will make a much better trip to town than one with the cylinder head broken or the gasoline line plugged. And so with a heart, leaky valves may limit activity, fibrillation may make the patient unhappy but only a worn-out myocardium will stop activity entirely and permanently. P. T. Bohan has quoted Mackenzie as saying, "I cannot conceive of cardiac dropsy developing as long as the tone of the heart muscle remains intact." However, Mackenzie reaches an extreme in the often quoted suggestion that, "The stethescope should be thrown away and the physician should learn how to elicit the early symptoms of heart failure."

Terminology is unimportant to my way of thinking. Myocardial degeneration may be a more accurate term than chronic myocarditis but we have used nephritis for years to indicate a non-inflammatory process in the kidney and myocarditis describes a somewhat similar process in the heart. Call it what you will the condition of the myocardium is the important point in prognosis. Since most cardiac lesions are incurable and palliative or protective measures much the same in all of them, prognosis seems to me more important than diagnosis. Tell a patient or his family he has a bad heart and they do not ask what caused it or how is it bad. They ask how long will he live, what can he do, will he die suddenly, etc.

Ginsberg[7], of Kansas City, expresses this well when he defines heart disease as a condition in which the heart muscle is so damaged as to accomplish its task only at the expense of more or less of its reserve. He adds, "You will notice that I particularly stress the myocardium. A murmur or a lesion of the endocardium does not frighten us for we know many a heart so altered can function as well as the normal heart provided the myocardium has not been markedly damaged. I might say here," he continues, "that every damaged valve caused by infection has also ensnared the myocardium to a greater or lesser degree." Berger[8] also emphasizes this saying we seldom find an infectious process limited to a single structure and that "It would be difficult indeed to find an endocarditis or pericarditis without an associated myocardial involvement."

To me the work of Henry Christian[15] typifies this newer emphasis on myocardial integrity. Many others, of course, have added much to the concept but for years Christian in his teachings, his addresses, and his papers has pounded away at this important point with scarcely a word for murmurs and thrills. And I believe it has been a healthy change of attitude from the old valvular viewpoint. In the past too many failing hearts have been overlooked and merely because there were no murmurs, the life saving restriction of activity not imposed or surgery has been undertaken ill-advisedly or a good prognosis given only to have the patient die soon after and conversely too many people have been made heart conscious, too many adolescent girls turned into cardiac invalids, too many boys denied the right to athletics, women the right to children, etc.

I do not for one moment deny that this is a delicate decision calling for our utmost judgment and that disaster threatens closely on either side of the narrow channel where we as pilots must steer the patient. But I fear Scylla as much as Charybdis. To ruin one child's life by restricting his activities unnecessarily seems to me as great a wrong as to shorten another's life by failing to insist on restricted activities. Fortunately for us, many of our patients refuse to remain restricted. Most of you, if you stop to think can recall numbers of cases found in life insurance examinations, routine check-ups and what not disclosing normal individuals with normal hearts who confess they were told years ago they had leaky hearts or weak hearts and went ahead and played football and basketball, or climbed mountains or had babies or worked as harvest hands with apparently no ill-effects. They think of their supposed endocarditis, of course, as something they got over or outgrew.

Analysis of my own records yields rather meagre information. The last 1000 cases I have indexed show seventy-three cardiac diagnoses but subtracting duplications this leaves forty-seven cases or an incidence of a little less than five per cent. In these forty-seven cases chronic myocarditis is given as the cause in thirty-six, rheumatic endocarditis in four and in the remaining seven either no etiological agent or

miscellaneous causes. This was obviously too small a group from which to draw any conclusions so I compared it with the last one hundred cases I have indexed showing any cardiac diagnosis. These figures showed thirty-six per cent chronic myocarditis with various forms of decompensation and thirty-three per cent without failure, a total of sixty-nine per cent. There were thirteen per cent compensated and regular rheumatic hearts and six per cent showed rheumatic endocarditis with irregularity, congestive failure or angina. These totalled nineteen per cent, leaving twelve per cent with either no real pathology or from scattered causes. This is shown better in tabular form but I mention it as confirmation of the opinion I previously held as to the relative frequency of myocarditis and endocarditis in the cases I see.

Analysis of 100 Consecutive Cases Seen in General Medical Practice With Some Cardiac Diagnosis

	Total Cases	Chronic Myocarditis	Rheumatic Endocarditis	Miscellaneous
Congestive Failure	19	16	3	0
Auricular Fibrillation	13	11	2	0
Angina Pectoris	10	9	1	0
Neurocirculatory Asthenia	5	0	0	5
Paroxysmal Tachycardia	4	2	0	2
Coronary Occlusion	3	3	0	0
Pulmonary Edema	2	1	0	1
Block with Stokes-Adams	2	2	0	0
Pulsus Bigeminus	1	1	0	0
Sinus Arrhythmia	1	0	0	1
Functional Murmur	1	0	0	1
Sinus Tachycardia	1	0	0	1
Traumatic Hemopericardium	1	0	0	1
Totals	63	45	6	12
Less Duplications	9	9	0	0
Net Total or per cent	54	36	6	12
Compensated	46	33	13	0
Total	100	69	19	12

Our present day problem then is to recognize and treat the ailing heart and to formulate some sort of prognosis however hazy for the patient or at least his family. Volumes could be and have been written on each of these phases, but without pretending toward completeness I should like to touch on a few factors in each field which seem to me to have changed radically in the past fifteen or twenty years.

The longer I practice medicine the more I am impressed with the possibilities that can be brought out by an accurate history and the less I seem to disclose by physical examination. That grand old man of Topeka, Dr. C. A. McGuire, shortly before he died, told me he felt something of the same sort. But the vagaries of the patient's memory irritated his precise mind. "I will question a woman in detail," he told me, "not only by systems and symptoms, but also chronologically from preschool age to marriage and then find an unmentioned upper right-rectus scar. 'What is this a barbed wire cut?' I ask and she will respond, 'Oh, no, Dr. Munn took my gall bladder out fifteen years ago—I forgot to mention that'."

The patient must be adroitly questioned to bring out what we want. The heart attacks they want to talk about are usually fainting spells, indigestion, premature contractions or hysteria. These must be followed up, of course, but the more significant dyspnea, orthopnea, edema, etc., must be elicited. I have never understood why fainting was supposedly such a cardinal symptom and yet many reported heart attacks are that and nothing more. Except in Stokes-Adams syndrome of heart block I can see no cardiac significance in fainting.

My own attitude toward premature contractions or extra-systoles is to minimize them unless some other definite sign of heart disease is elicited. Especially in young adults my experience has been that they are due to tobacco, infection or fatigue in nearly all cases. They are often a part of neuro-circulatory asthenia or effort syndrome which to my mind, is not a cardiac condition at all. A short experience in a cardiac clinic a few years ago confirmed me in this opinion. We ran complete studies including electrocardiograms and orthodiagrams on all our patients but I do not recall one of the many young adults who were referred to us with premature contractions showing any pathology. Stroud and his co-workers[16] found extra-systoles with relative infrequency in a detailed study of some 458 children with rheumatic heart disease over a period of ten years. In middle aged and older persons premature contractions may be of real significance but almost invariably other signs accompany them. I have considered premature contractions under history for the reason that they perversely refuse to appear at the the usual examination. Often it is difficult to discover whether the patient has merely a rapid and forceful heart action to complain about or an irregular rhythm. With premature contractions the patient will almost always volunteer that the heart "stops and turns over", or agree to that if asked about it.

Cardiac pain is another difficult problem to

evaluate. Most of the "pain around the heart" as the patient puts it, in my cases turns out to have its origin in the pleura or below the diaphragm. I am always suspicious of heart pain that makes the patient walk the floor or get up and throw open the windows although discomfort of less degree than true angina, such as occurs in paroxysmal tachycardia for instance, often seems to lead to such activities. This type of pain, too, seems more liable to occur over the traditional heart area. True angina, I believe, always starts under the sternum although from there it seems able to radiate to any part of the head, neck, or upper extremities or even downward. It also comes in all true cases after exercise or digestion.

Dyspnea on exertion is in my mind the most suggestive point in the history. This is well expressed by Harrison of Vanderbilt[17] who says, "The patient's subjective respiratory distress is the most important clinical phenomenon in cardiac disease."[18, 19] And yet this may easily mislead us. A recent gain in weight will be followed by dyspnea, but the fat woman cheerfully continues to climb and puff. On the other hand the big majority of middle aged early myocarditis cases gradually restrict their activities or slow down their actions until they are scarcely aware that hard or continued exertion would lead to breathlessness. Often this history of slowing down can be gotten better from some associate than from the patient himself. Orthopnea is usually not noticed unless it comes on rapidly but the question of how many pillows are used will bring it out. Edema likewise is confusing and must be distinguished from the swelling due to varicose veins, nephritis, cirrhosis and the like.

These past few statements are of course my own opinion, but I hope represent a modern viewpoint of cardiac symptomatology. The past history is likewise important or suggestive. Repeated insults in childhood like diphtheria, small pox, pneumonia, scarlet fever, etc., seem to me of equal if not greater importance than indefinite rheumatic symptoms such as growing pains. Nevertheless these vague rheumatic histories, especially where they include repeated tonsillitis, are I think, fully as significant as the traditional repeated acute inflammatory rheumatism and chorea. Levine[8] says a large proportion of patients who have gone through a rheumatic infection are not aware of it. It should also be remembered that many children up to early school age have acute tonsillitis without complaining of sore throat or the family realizing the condition is more than an "attack of fever," stomach trouble, "teething" or some other vague home diagnosis. Goodman and Prescott[20] in a recent survey of 528 adolescent children with heart disease, classified forty-three per cent as rheumatic and forty-seven per cent as of unknown etiology although admitting many of the latter had probably been subject to some unrecognized rheumatic infection. My experience with acute rheumatic fever in the past ten years may be exceptional but it seems to me either to be decreasing or less prevalent in this climate than along the seaboard. Certain studies of Longcope[21] and others[22] indicate a marked climatic variation in its incidence. I have also seen very little sub-acute bacterial endocarditis since finishing my hospital service and I believe its infrequency reflects the lowered rheumatic background.

Along this line I think it worth while to mention chronic or recurrent conditions such as bronchial asthma and chronic bronchitis which I am sure lead to many early cardiac deaths. Alcohol may play a similar part. The tobacco heart idea I think is pretty well exploded. Tobacco affects the nerve supply of the heart beyond question but that its use or abuse has any direct effect on the heart itself I very much doubt. There may be cases of idiosyncracy comparable to nicotine amyblyopia but I have never seen one. "Athletes heart", I think, is also a thing of the past chiefly due to *x*-Rays after severe athletic contests which show the heart to be smaller than normal at such times. We all see, however, the type of man who plays football, basketball, and baseball for eight years at school and college and then sits down to a desk and continues his eating. Some of the troubles he gets into might be called the athletic diathesis and of course would include heart failure.

The effect of chronic nephritis, hypertension, arteriosclerosis and other cardio-vascular conditions is too well recognized to need comment. The hypotensive arteriosclerotic may have myocarditis as well as his brother with hypertension. A great deal has been written recently about the heart in hyperthyroidism and hypothyroidism and we all see examples of one or the other frequently. In my experience the goiter heart returns rapidly to normal under proper goiter treatment unless the thyrogenic insult has been of too long standing. The recent work on thyroid ablation in heart disease

seems to offer a definite if somewhat limited attack but I have had no personal experience with it as yet. Christian[27] in last week's Journal of the American Medical Association offers a pertinent comment on the balance between the benefits of hypothyroidism and the deleterious effect on the coronaries.

Anemia can simulate heart disease or make an existing lesion more pronounced but most of us have this common condition well in mind. Many of my patients from this part of Kansas go to Colorado for vacations and the effect of elevation on cardiacs is interesting. I think after the initial breathless phase is passed the organic heart if not pushed to its full limit is seldom harmed by higher elevations. Possibly the relaxation of a vacation helps or the added breathlessness enforces rest. Most patients who do poorly in the mountains are anemic.

The family history seldom gives me much information; as a matter of fact I secure it mainly to satisfy the College of Surgeons requirements at the hospital. Cardiovascular lesions such as hypertension and cerebral hemorrhage do seem to show a hereditary trend but heart trouble can be of so many types that hereditary tendencies are hard to trace if they exist. We all know, of course, that the man whose parents and grandparents all reached ripe old ages has a better chance to go through the early degenerative years unharmed than one whose family history is spotted with early cardiac, nephritic and apoplectic deaths.

In the physical examination I want to touch on only one point and that is the size of the heart. I think enlargement is important but I sometimes wonder if it has not been overemphasized.[7] The borders are hard to percuss accurately and even locating the point of maximum impulse visually or tactilely may be misleading. All hearts seem small in the emphasematous chest and what seems to be a large heart in an old man may have been normal size for him in his active robust years. Again the effect of body types is hard to estimate—enlargement in the dropped heart of an asthenic type may be overlooked or the transverse heart on a high fat diaphragm may seem larger than it is. Teleoroentgenograms help in such cases but less than would be expected. Our views as to the value of hypertrophy are also changing these days and a large heart is better considered a weak heart than a compensated one even though the circulation as a whole is compensated.[15]

I still think in terms of hypertrophy of the heart (assuming of course, the dilatation that accompanies it) and am not sure that I have ever seen a case of acute dilatation alone. Christian says dogmatically it does not exist.[15] This, however, is a matter for the pathologists to determine.

Passing hurriedly over the changes that twenty years have seen in treatment we can pause on the interesting subject of digitalis only to mention one or two points. One is the increased potency of the modern preparations—a difference from a few years ago that is hard to realize. About 1931 I had the honor of caring in his last illness for a beloved old practitioner of the old school whom many of you knew, Dr. W. F. Sawhill. He was greatly surprised at the effect of digitalis tinctures on his seventy-five year old heart. Since the death of a druggist thirty years before who made a fine infusion of digitalis for him Dr. Sawhill had about given up the use of the drug as the preparations available to him were uncertain and often inert. More recently the whole leaf digitalis in capsules appears to be the form of choice.[14, 15]

Another interesting development to me is the quite recent return to tonic doses of digitalis or treatment less than full digitalization. We were taught in medical school that this was useless and the practice was gradually dying out. In the last few years, however, numerous careful observers, including Christian, have swung back to such sub-minimal doses in hearts without failure, apparently with good effect. This explains, I am sure, some benefits I have seen which theoretically should not have occurred. Such use should be limited, however, and never confused with the need for full digitalization where that exists.

Another form of therapy I have seen reach acceptance, is xanthine derivative variously called aminophyllin, thephyldin, and metaphyllin. I used it first while a house officer as a German importation, euphyllin, and was impressed then by its value in chronic coronary disease. While useful in only limited cases its American successor (the same drug with a new name) has a definite place in cardiac therapeutics. Likewise the mercurial diuretics, merbaphen, salyrgin, etc., have proved their value in symptomatic relief if not permanent cure of intractible edema. They were first introduced into this country shortly after 1920.

Prognosis in heart disease may have pro-

gressed since 1915 but as uncertain as it is I am doubtful.[23] We can map out the possibilities of the particular lesion present but can we ever foretell the patient's reactions? The nervous, busy, always active man who apparently does not know how to relax may take our orders with stoicism, give up his golf, his big meals, and his worries, and settle down to an ideal regime. The other patient with nothing to do and plenty of money with which to do it, may worry himself out of every improvement he has made or dash about futilely spending what little reserve he has. And over the patient and over our prognosis like the sword of Damocles is the unpredictable thrombosis or embolus. Estimate the reserve as carefully as we will, educate the patient to restrict his exertions, his emotions and his eating, avoid infections successfully and like the Irishman our patient wakes up dead some morning. If I have learned anything about cardiac prognosis in the last ten years it is to be more and more guarded.

The actual method of cardiac death, the final mechanism, is fascinatingly unpredictable. Dr. Wahl[24] of University of Kansas says that thrombosis occurs when the circulation slows down and this frequently occurs in sleep. But what slows down the circulation more than usual, or what other factors are involved? He also says the older the heart the better it is able to cope with occlusion because of better collateral circulation. Hence the deaths on the golf course, etc., are those of younger men. Recent works all emphasize the response to effort as the best prognostic criterion but all admit that prognosis in heart disease is largely guess work.

Statistics show us that heart disease is increasing as a cause of death[22, 25] but this is true of all the degenerative diseases and is largely due apparently to our getting the patients through the earlier years successfully. In other words, if we refuse to let them die of "summer complaint", typhoid, diphtheria, small pox, etc., they grow up to the age where they increase the host of cardiac deaths. The crude figures for the American Registration area for 1900 showed 111 deaths per 100,000 and 184 per 100,000 for 1932, an increase of approximately two-thirds. Thus even the frequency of heart disease has increased.[25]

Heart disease is such an immense subject and such a fascinating one that I have undoubtedly strayed from my field of comparing 1915 with 1935, but I hope I have demonstrated some changes in our viewpoint in those twenty years. I hope also and believe that the 1935 concept is an improvement over that of 1915. What 1955 will think of our ideas of today I leave to your imagination.

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GONORRHEAL INFECTIONS IN THE FEMALE*

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There have been many discussions as to the seat of infection of gonorrhea in the female. Almost any book[2] will tell you that in little girls it is vaginal or urethral, maybe with some cervicitis. However we have had two cases of definite salpingitis with some peritonitis, one a girl age 7, the other 9 years of age. Both of these girls had severe lower abdominal pain, elevated temperature and white blood counts; which subsided when a purulent discharge began to flow from the vagina. As this abated, their symptoms returned. The white blood count in these cases was above 20,000 when we saw them. They did not remain under our care for treatment.

In older women it is considered that there is an inflammation of the vulva, vagina, urethra, Bartholin's glands, Skene's glands, cervix, tubes, and often a peritonitis. And with that the common text books stop when telling of the site of infection. Before one can cure a disease, you must consider every possible seat of pathology. Gonorrhea is difficult to treat because all of the seats of infection are not known to the doctors and therefore are not treated. We were not able to maintain our cures and in the absence of new exposures we began to look around for other possible sources of reinfection. Also for new methods of treatment that might give us quicker and more lasting results.

At the suggestion of Dr. C. C. Tucker,[1] a proctologist, smears were made from the rectum on all cases with positive vaginal discharges, the patient having had an enema at home before coming to clinic, using a proctoscope so that we might get well up into the rectum and take the smears from the tops of the ducts and crypts of Morgagni. These crypts had whitish tops on them and in some cases were exuding pus. Both girls below the adolescent age and older women were often found to

*Prepared by Dr. Black while he resided in Wichita, where he was a member of the gynecological service of Sedgwick County Hospital and the Girls' Detention Home.

be positive and new cases who had not had the disease more than two or three weeks were also often positive. However, in three cases, who were about 8 years of age, the organisms were not found and the crypts and ducts showed very little infection.

In this series of cases about to be described, most of the patients had had treatment of some nature for from two weeks to two and a half years; using tampoons of Ichthyol in Glycerine, Metaphen in Oil, Tr. Merthiolate, or Post Cautery and Salpingectomy. And a typical case would run as follows: Treatment for three or four weeks, the discharge lessened or stopped and after they had had three negative slides, they would be put on a rest of one month, only to be positive on return. Therefore there was never any assurance of a cure. Twenty-two of these girls were in a detention home where it was certain that they were not making any new contacts. The others were from a charity venereal clinic. Patients were not dismissed until smears over a period of six months showed no gram negative diplococci, either extracellular or intracellular. Those with extracellular cells only were retained because in chronic or treated cases of known gonorrhea where repeated slides were checked and only extracellular cells were found, the patients were infectious to every contact, or in others known positive, where only extracellular cells were found after treatment, who were put on a rest, the cells became intracellular again. Therefore in a treated case of positive gonorrhea of any part, we have concluded that even in view of the fact that extracellular cells are not considered diagnostic of a new case, they are sufficient to hold a patient for further treatment; also to conclude that the infection is in the rectum, if only extracellular gram negative diplococci are found there in a case of positive gonorrhea of the female genital tract.

Of sixty-six women and girls with gonorrhea of the female genital tract, whose rectal conditions were checked, fifty-four showed infected ducts and crypts and some beginning hemorrhoids, and forty-four had positive rectal smears. In the eight small girls treated for gonorrhea, five had positive rectal smears and showed infected ducts and crypts and two showed beginning hemorrhoids. For the pathology of the rectal infection we will refer you to Drs. Tucker's and Hellwig's reports.

CASE REPORTS

First to be discussed will be the girls at the detention home. These girls were carefully cared for as to sleep, diet, exercise, schooling and the like. Hospital records were kept on them by a graduate nurse.

Case 1. Age twelve years, this girl was positive for gonorrhea when admitted. The rectum was negative—she passed to the menstrural age while under our care. She cleared up after about the sixth tampoon treatment and remained free.

The following were treated by injections of Theelin.[3]

Case 2. Age nine years, chronic gonorrhea with no rectal pathology, was treated with forty-three injections of Aqueous Theelin and has remained negative. The first two negative smears were obtained after twenty-one injections followed by a positive smear one week later and then seven negative smears. Patient was negative six months later.

Case 3. Age ten years, chronic gonorrhea with positive rectal smears was treated as follows: 18 daily injections of 1cc Aqueous Theelin. 10 B.I.D. injections of 1cc Aqueous Theelin. Three negative smears—no discharge; 8 B.I.D. injections of 1cc Aqueous Theelin. 13 daily injections of 1cc Aqueous Theelin.

At this time the patient again became positive; she was placed on Elliott method of treatment for forty-eight treatments and with no further positive smears either from the rectum or the vagina. She has remained negative over a period of six months.

Case 4. Age eight years, chronic gonorrhea of rectum and vagina, was undersized and underweight and was of low mentality or backward type. She was treated with an aqueous solution of Theelin, one ampoule daily for fourteen doses, when she developed a reaction. With this she complained of severe abdominal pains and cramping so severe that it doubled the patient up. The pulse and respiration were increased and the nurse seemed to think the patient having a "fit" of some sort. There was nausea and vomiting, but no tenderness or rigidity, and no increase in white blood count. The patient felt sick for about a day, but did not have an elevation of temperature. Medication was discontinued for twenty-four hours. After eight more doses, another reaction occurred and so on until five reactions had occurred. When, at this time, after fifty ampoules of Theelin in forty-eight days, Theelin was discontinued, and the vaginal smears continuing to be positive, the patient was tried on the Elliott method. After seventeen Elliott treat-

ments, the patient's smears became negative and remained negative for three months. However, as the patient was very uncooperative, the Elliott treatments were only partially carried out, as the length of time had to be shortened and the temperature could not be carried high enough (110 degrees to 120 degrees). The smears became positive after three months and Elliott treatments were again tried but had to be discontinued because of lack of cooperation of the patient. Theelin in Oil was started with five injections weekly, twenty-eight ampoules of 300 units were used. The discharge decreased rapidly and the smears became negative again. The smears from both the rectum and vagina have remained negative for two months. She had a total of seventy-five Elliott treatments: 2500 units of Aqueous Theelin, and 8400 units of Theelin in Oil. The patient is gaining rapidly in weight, is growing and is better behaved. However the ducts and crypts are still inflamed, and Dr. Tucker will resort to surgery to remove this source of possible reinfection.

Of the older girls, thirteen to seventeen, eighteen were treated by the Elliott method, all were chronic cases with considerable previous treatment except two. The treatments were daily except during the menses and lasted for one hour, the initial heat being 110 degrees and increasing to 125 degrees at about two and a half pound pressure. These girls could not tolerate higher temperatures nor greater pressures. They complained of considerable discomfort if these limits were exceeded. The rectal temperature ranged from 103 degrees to 107 degrees during the treatment. For the first few days the discharge became quite purulent and was increased greatly, then after the first week it began to subside, until finally there was none at all. Cervical erosions were increased, as the cervix was turned out due to the treatment, and these were treated with Post Cautery. The first negative slides were obtained as a rule somewhere between the twenty-first and thirty-fifth treatment. But treatments were continued until each case had received about sixty treatments and there had been at least eight negative slides. The cases were then checked following their menses, and they have been found to remain negative. The rectal smears on these cases have all remained negative following this line of treatment. White counts and body temperatures were not altered by these treatments. A few slight burns were received but these healed on further treatment in about three days. There was no scarring from these burns.

Case 5. Age thirteen years, acute untreated gonorrhea, developed an acute salpingitis after having been treated for three days by the Elliott Method and this subsided in about four days. The patient had an elevated temperature during this interval. This girl continued to show a purulent discharge over a period of seven months, but no more attacks of salpingitis. Her rectal and vaginal smears have remained positive. Finally this discharge subsided and she began running negative smears as follows: At the end of the 112th treatment the patient became negative and remained so for three weeks, then was positive on two succeeding smears. At the end of the 150th treatment she became negative for four weeks, then following her menses her next smear was positive, and on the weeks following she had one slide with only extracellular diplococci and one positive. Her treatment has not been discontinued but salpingectomy will probably be resorted to if she remains positive after her 200th treatment.

Case 6. Age fourteen, had a non-specific infection with considerable purulent discharge and many bacteria present. This girl cleared up entirely after twelve treatments with no further trouble.

Positive slides can be obtained in patients immediately following a douche or after a treatment. Positive rectal smears can be obtained following an enema or an Elliott treatment when the applicator has been in the vagina. Rectal applicators were not used as they were not needed to clear up our cases. Three of these cases were also receiving treatments for syphilis. Several said that they derived a sexual impulse from the Elliott treatment and that sexual desires were greatly increased, while others noticed no stimulation at all.

There was no way of controlling the women attending the gynecological clinic and their treatment by any method was very unsatisfactory. The majority of those attending a charity venereal clinic are quite promiscuous and as a rule are having repeated exposures to new infections. This causes us to make the discussion of their cases very limited. Five of these women have been treated by the Elliott method. They can tolerate higher temperatures and greater pressures than can the younger girls. They began to run negative smears at the end of two weeks treatment by the Elliott method, the discharge had ceased and clinically they also showed marked improvement. But there can be

no definite data as to a cure on them. Therefore we merely mention them to state that we have obtained quicker results on older women, but cannot site their cases as proof of the value of the method of treatment. This method of treatment was not available to any more of the clinic patients.

Case 7. One woman who had had a salpingectomy and cervical cauterization for a chronic gonorrhea with a frozen pelvis of long standing, cleared up and showed negative cervical and vaginal smears over a period of a year. She had no vaginal discharge during this period. She complained of no rectal trouble, and on examination there were little or no signs of infection there, but the rectal smears were never free from gram negative intracellular diplococci.

In all we have treated six cases of gonorrhea in little girls with Theelin in Oil and have apparently had good results, but the last five have not been with us long enough to claim a definite recovery as they have been followed up only for a period of a couple of months. In the last five cases about two weeks of five injections each were required to get the desired results, however, one patient became negative in one week. The patients are now free from a vaginal discharge and have negative vaginal smears. On two the rectal smears have never been positive. Dr. Tucker is treating the rectal infections on three of these with injections of one per cent protargyrol. The other case, Case 4, has been described.

Dr. Tucker explains that the rectal infections are so commonly seen in women due to the following fact. When a person strains at stool the rectal mucosa is turned out exposing the crypts and ducts, and in women this allows any vaginal discharge present to run down across this exposed tissue. He and Dr. Hellwig[1] have demonstrated these ducts and crypts in infants and in the foetus, as well as in adults.

It is quite logical that either the rectum or the vagina can remain infected alone, and as a source of potential infection to the other without infecting each other. But we believe it is more common the other way. Also it is apparent that the rectal infection is present more than we have been heretofore led to believe, and that it is quite often relatively symptomless, however, hemorrhoids, abcesses and the like do often follow.

Six cases who had had salpingectomies and defundectomies, and who were thoroughly checked later, were found to be positive both vaginally and rectally. Three of these quit treatment after many more months of treatment and were still positive when they were last seen. Two were cleared up by the Elliott method. The other is attending the clinic at present and after three and one-half years of treatment is still positive, the Elliott treatment not being available to her.

SUMMARY

1. Fifty-four out of sixty-six positive cases of gonorrhea of the female genital tract, or eighty-three per cent, showed rectal pathology.
2. Forty-four, or sixty-six per cent, showed positive gonorrhea of the rectum.
3. Of the small girls, five out of eight, or sixty-two per cent, had rectal gonorrhea.
4. Twenty cases were treated by the Elliott method, eighteen, or ninety per cent, becoming negative both rectally and vaginally.
5. Eight cases of gonorrhea in small girls were treated by hypodermic injections of Theelin. The vaginal smears on all these cases became negative but five of these had positive rectal smears and this rectal condition was not altered by the treatment with the Theelin.

CONCLUSIONS

1. It appears from the work we have done, that although various methods of treatment of vaginal gonorrhea seemed to produce temporary cures, the patient becomes reinfected from the rectum and therefore a final cure is not obtained.
2. That Theelin apparently relieves the vaginal gonorrhea in small girls, but if there is a co-existing rectal infection, the cure cannot be maintained unless this is also treated.
3. Theelin in Oil seems to be superior to the Aqueous Theelin in that there is no burning at the time of the injection, and that it is apparently absorbed and eliminated slower as it did not produce reactions in a patient who had continually reacted to the Aqueous Theelin and results were obtained quicker in the cases in which it was used.
4. The Elliott method of treatment relieves both the rectal and vaginal condition but it is a longer process in girls than in older women due to the difference in the elasticity of the vaginal walls which prevent as complete a distention of the applicator in girls as can be had in older women.
5. Although others report good results in the treatment of tubal infections by the Elliott method, we apparently have not had the same

in our case, but this might be due to the fact that the temperature of the treatment was not carried above 125 degrees.

6. Under ordinary mehods of treatment a case of gonorrhea is apt to persist for years in a chronic vaginal or rectal form, and remain rather symptomless, even when the patient is kept under the strictest confinement and prevented from any new exposures, or the patient may not be symptom free but suffering continually.

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THE VALUE OF THE TUBERCULIN TEST*

CLIFTON HALL, M.D.†

Topeka. Kansas

The extensive use of tuberculin now in progress throughout the world, has made apparent the need of a standard substance. Each year more and more tuberculin testing is being done, and unless a standard dosage of the active principle is used, the results will tend to confuse rather than clear up the epidemiology of tuberculosis. With the steady drop in the mortality rate of tuberculosis, increased efforts are being made toward preventive measures.

It has been found that the tuberculins prepared by commercial houses, state boards of health, laboratories, etc., vary enormously in the percentage of active principle. Some tuberculin is ninety-nine per cent inert material and there is considerable chance of falsely interpreting many reactions as positive. After considerable research, the National Tuberculosis Association adopted the Synthetic Medium Tuberculin of the Bureau of Animal Industry. The investigations of Drs. Seibert, Aronson and Long in the preparation and use of a standard tuberculin has resulted in a preparation called Tuberculin P.P.D. (Purified Protein Derivative). This tuberculin is manufactured by the Mulford Laboratories of Sharp and Dohme and the laboratories of Parke, Davis and Company, under the direct supervision of a special Tuberculin Committee, which is a sub-committee of the Committee on Medical Research of the National Tuberculosis Association. Every lot manufactured is tested for standard potency at the Henry Phipps Institute under supervision of Drs. Seibert, Long and Aronson.

With uniform tuberculin being used throughout the world, more accurate knowledge may be gained concerning the conditions underlying varying sensitivity. With forty years of tuberculin testing behind us, no definite conclusions have been reached other than that a positive tuberculin indicates a previous infection with the tubercle bacillus. The Kansas Tuberculosis and Health Association and the Kansas State Board of Health would like to see Kansas physicians adopt Tuberculin P.P.D. as a standard, so that their results might be more uniform.

We suggest that the tuberculin test be given to a large percent of the population so that definite advances may be made in controlling tuberculosis. Tuberculosis costs Kansas over $2,500,000 annually, all of which is unnecessary, for as Pasteur said, "It is within the power of man to cause all parasitic diseases to disappear from the world."

The tuberculin test can be used equally well in case finding among families, and as an aid toward early diagnosis. Let us take the infant and preschool child. If a child is infected before school age, there is a strong possibility of an active case of tuberculosis being present in the family. A child of this age has few contacts outside the immediate family, and the aunts, uncles, grandfathers and grandmothers. Surely if an infant gives a positive test the case of active tuberculosis responsible for the reaction should be found. In this way, an old chronic case of tuberculosis can be taken out of circulation, or an early case of tuberculosis discovered before the physical "break".

The grade school child may be tested for the same purpose. In this case, however, the child has had other contacts and while the family and close associates should be investigated, the incidence of active cases found in these families will be less than in the preschool child family group. Possibly a more important reason for testing in the grade schools is that here it is possible to begin the active work of prevention. A child who gives a positive test during this age, is from five to nine times more likely to develop clinical tuberculosis before the age of thirty than the child who does not react. Thus by carefully watching this relatively small group over a period of years, removing them

*Read at Cowley County Medical Society, December 20, 1934.

†Division of Tuberculosis, Kansas State Board of Health.

from contact and supplying them the necessary education, food, clothing, and rest, it is estimated that the incidence of tuberculosis would decrease from seventy per cent to eighty per cent.

In the high schools we begin to find adult type tuberculosis. From one to four per cent of positive reactors in high schools reveal definitely suspicious *x*-Ray findings with an occasional unmistakable tuberculosis. Here the social aspect must be considered. An active case of tuberculosis may infect seventy-five per cent of his classmates, and may even witness the death of a fellow classmate, caused by his own condition. Younger children in the home may become infected and possibly die of a tuberculous meningitis.

Colleges have made use of the tuberculin test and the *x*-Ray in finding unsuspected tuberculosis among the students. A program of this sort was carried out by Canuteson at Kansas University in September and October, 1934. Out of the 1,330 freshmen tested, 450 gave a positive reaction. All these were *x*-Rayed, and although no cases of clinically active tuberculosis were found, there are several students taking a little more rest and doing a little less work because of suspicious findings.

At Iowa State, the results were somewhat different. Of the 2,997 tested by Kalar, there were 360 positive reactors. The *x*-Rays of these positive reactors revealed seventeen cases of active pulmonary tuberculosis, of which three had positive sputum. By substituting close supervision, a proper hygienic mode of living, health education, and rest, for strenuous schedules, athletics and social life, these individuals may prove an asset rather than a liability to their community.

So much for the school life of the community. Now what about the adults? Tuberculosis is the leading cause of death between the ages of fifteen and twenty-five. Many boys and girls are deprived of the privilege of a college education and are employed soon after reaching this all important ten-year period. Group insurance is becoming increasingly popular for both employer and employee. Group health examinations are finding favor and many industries require physical examinations before they employ the applicant. The tuberculin test is of definite benefit here. Followed by *x*-Ray, many unnoticed cases of tuberculosis will be found at a stage where no definite symptoms are recognizable. Fellows, in his work with the Metropolitan Life Insurance Company found 141 active cases among the 13,000 supposedly well employees. Incidentally, of this group, thirty-three per cent were symptomless, and fifty-eight per cent had no rales. Undoubtedly this group is no different from other groups throughout the country, and it is quite possible to find many unsuspected cases among our people who are able to carry on a full day's work. By tuberculin testing groups, and *x*-Raying the positive reactors, great strides could be made toward ridding the community of tuberculosis. Not every adult gives a positive reaction. Less than fifty per cent of the adult population in Kansas will give positive reactions, and in certain communities, as high as seventy-five per cent of the adult population is probably free of infection.

One of the reasons more women than men die of tuberculosis in the early twenties is because of the strain of pregnancy. If tuberculosis in a sub-minimal stage is diagnosed early in pregnancy, many mothers, by careful supervision, can be saved from tuberculosis, and their children allowed to grow up free of infection.

The tuberculin test is of definite value in older people also. Although a positive test does not mean clinical tuberculosis, a negative test is of importance in ruling out this condition. A cough, loss of weight, malaise, etc., in an adult, may point to tuberculosis. Here a negative test is of importance and permits the physician to rule out tuberculosis in favor of some other condition. Fully twenty per cent of the patients entering the sanatorium do not have tuberculosis. Many of these give negative tuberculin reactions and should never have been sent to the Norton sanatorium. During the past year, several suspected cases of tuberculosis have appeared for examination at our various clinics. As a matter of record, and to substantiate negative findings, tuberculin tests were given, many of which were negative. With few exceptions, it seems unwise to diagnose a case as having tuberculosis in the face of a negative tuberculin test.

Thus it can be seen that the tuberculin test is of value from infancy to old age, for case finding, as an aid in diagnosis of unrecognized tuberculosis in its incipiency, and as a means of eliminating tuberculosis in the differential diagnosis.

DERMOID CYST OF THE OVARY*

WILFRED COX, M.D.
Wichita, Kansas

The etiology of dermoid cysts is not known. Cullen states, "the ovary is in reality an embryo factory and, given the necessary stimulus, certain elements will start growing". Against this theory is the fact that dermoids originate and develop in other parts of the body. Some feel that a dermoid should be considered as a twin belonging to the same generation as the patient in whose ovary it developes.

Dermoid cysts are most often found anterior to the uterus and usually only one ovary is involved; however, both ovaries may contain dermoids. Large ovarian dermoids are pedunculated and have a tendency to become twisted. They are also likely to become infected. Dermoids usually vary in size from 5 to 15 centimeters in diameter, (rarely larger than the fist). Five to ten per cent of all ovarian tumors are dermoids. These tumors may cause necrosis of the bladder or rectum.

Macroscopically they are lined with skin and contain an oily fluid which solidifies on cooling, bone, teeth (may be fused) and hair. The hair is not always the same color as that of the individual harboring the tumor.

Microscopically there is no hornified layer to the skin but the corium, stratum germinativum and papilla are present with an underlaying fibrous stroma in which sebaceous and sweat glands along with hair follicles may be found. Cullen states that, "sieve like ovarian stroma with giant cells means that a dermoid is nearby".

The symptoms of an ovarian cyst are: pain in the lower abdomen, fever (if infected), frequent urination, constipation, pain in the legs, endema of one or both legs, (varicose veins), dyspnea (if a very large tumor), diminished flow and lengthened interval between periods. Large cysts in young women usually have amenorrhea. Increased flow makes one suspicious of carcinoma of the ovary.

The physical findings are: bulging lower abdomen, mostly in the midline, mass which moves when the patient changes her position, no fluid wave unless the tumor is very large or there is fluid in the abdomen, (with fluid there is shifting dullness), no bulging of the umbilicus, and the mass is usually anterior to the uterus. On bimanual examination the tumor is separate from the uterus; moving the uterus does not move the mass unless it is infected. If infection is present then one has the physical findings of a "frozen pelvis".

The treatment is either surgical removal, intact if possible as infected dermoids tend to produce peritonitis, or drainage through the culdesac with removal of the contents per vagina.

Dermoid Cyst of the Ovary No. 1
Wilfred Cox, M.D., Wichita, Kansas

The case that I have to report is a female, age twenty-one, who entered the hospital February 9, 1933, with a chief complaint of pain in the lower abdomen. Four months ago she had an abortion and has had one normal period since that time. Three months ago the patient was in bed three to four days with pain in lower abdomen, vomiting and fever. This attack started December 7, 1933, with pain in the lower abdomen, vomiting, pain on urination and pain on bowel movement. After entering the hospital the patient had to be catheterized. Her periods have been scanty and irregular the last four months. The temperature was 101 to 102 degrees, pulse 104 to 120, respiration 18 to 22. Has had only one period since December

*Read before the Sedgwick County Medical Society Oct. 16, 1934.

7, 1933.

The laboratory report was as follows: Hb. 80, RBC. 4,800,000, WBC. 16,200 to 25,-200, Polys 82 per cent.

There was tenderness and rigidity over the lower abdomen. Bimanual examination revealed a firm, round and fixed mass pushing the cervix up against the symphysis, both fornices and the culdesac were full. Rectal examination revealed a firm, round and fixed mass. Three days after entering the hospital the mass enlarged to three fingers breadth above the symphysis.

Dermoid Cyst of the Ovary No. 2
Wilfred Cox, M.D., Wichita, Kansas

A colpotomy was done December 12, 1933. Greasy material, hair and one piece of bone were removed. An iodoform drain was inserted. The drain was removed gradually, entirely in six days. The postoperative treatment was as for peritonitis eg. Fowlers position, Levin tube with negative pressure, hypodermoclysis (normal salt solution), five per cent glucose in normal salt solution intravenously, morphine and heat to the abdomen. The patient was in the hospital one month.

The patient was *x*-Rayed in February and showed teeth and bone in the pelvis.

The patient returned to the hospital February 27, 1934. She complained of pain in the lower abdomen. The temperature was normal, the pulse 100 and the respiration 18. The urine was normal, WBC 15,400, Hb 69, RBC 3,770,000. The opening previously made in the culdesac was obstructed by bone and hair. This opening was enlarged and the contents of the dermoid removed.

An iodoform drain was inserted. The drain was removed in forty-eight hours. The patient left the hospital in one week, with normal temperature, pulse eighty, respiration twenty and the drainage much decreased. The patient was examined October 8, 1934, and the opening posterior to the cervix was healed; the temperature was normal and no mass was palpable on bimanual examination. The patient has gained in weight and is working every day.

In conclusion. The etiology of dermoids is not known. An ovarian dermoid posterior to the uterus may be successfully drained through the culdesac by the removal of its contents per vagina, and the patient apparently makes complete recovery.†

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†Editorial Note: While the generally accepted surgical opinion is that a complete extirpation is required for the cure of an ovarian dermoid this case report illustrates a relief of symptoms for a period of eight months by a more conservative procedure.

ARTIFICIAL PNEUMOTHORAX IN THE TREATMENT OF LOBAR PNEUMONIA

Albert Behrend and Roscoe B. G. Cowper, Philadelphia (Journal A.M.A., June 9, 1934), treated eleven patients having unilateral lobar pneumonia with artificial pneumothorax to compress the affected lung, with two deaths. Neither of these fatalities could be directly attributed to the pneumothorax. They believe that collapse therapy is a rational form of treatment of lobar pneumonia, based on sound surgical principles. That lung tissue affected by lobar pneumonia can be compressed by air has been shown clinically, by roentgenograms and at necropsy. Artificial pneumothorax relieves the pain of the pleurisy that frequently accompanies lobar pneumonia. It is possible to induce a critical fall in temperature by artificial pneumothorax. The authors believe that artificial pneumothorax is neither a "cure-all" nor a "therapy magna sterilisans," but it has shown itself to be a valuable adjunct in the treatment of lobar pneumonia and even a life saving measure in some cases. They have seen no complications directly attributable to the procedure.

PRESIDENT'S PAGE

OUR RESPONSIBILITIES

To the Members of the Kansas Medical Society:

Organized medicine in Kansas is represented by 1405 members and carries upon its roster the name of every physician and surgeon, past and present, who has achieved any degree of prominence in the field of medicine in our state.

We take pride in the Kansas Medical Society which was organized under the old territorial government of Kansas back in 1859 and that since the time of its incorporation this Society has worked for the betterment of the commonwealth of Kansas. The purposes of the Society embrace the highest ideals, both for the medical profession and for the welfare of the public.

If there was need for organization seventy-six years ago, certainly there is greater need today for united cooperation in the study of rendering the benefits of medical science to the ills of suffering humanity, to the prolonging of life and adding comfort thereto.

Our Society consists of officers, councilors, committeemen, delegates, members, and guests, each of which has his specific duty or place in the organization. The officers of the Society shall be a president, president-elect, vice-president, constitutional-secretary, and treasurer.

The president of your organization has very definite duties as outlined in the constitution and by-laws of the Kansas Medical Society which specifies "He shall preside at all meetings of the Society; he shall be the real head of the profession in the state during his term of office; shall, as far as practicable, visit by appointment the different sections of the state and assist in the organization of new societies and in the building up of the older ones." But the president, if he has the highest interest of his society at heart cannot and will not let his activities cease with the written word.

He will acquaint himself, thoroughly, with the mechanism of the organization and whatever concerns the society will be his concern also, and when problems arise, as they constantly do, he will give them his prompt and earnest attention keeping always in close touch with the central office. His energies and services will be dedicated to the society for his term of office.

The councilors are important units in the organization and also have specific duties to perform. It is binding on each councilor to visit the different counties in his district, at least once a year, for the purpose of increasing the zeal of the society in organized medicine and presenting to the members the problems that confront the profession today. It is most gratifying to know that many of the councilors are fulfilling their obligations and will, no doubt, have encouraging reports at the next annual meeting.

The executive-secretary committee which was appointed at the last annual meeting has functioned in an ideal manner, holding frequent meetings in the different sections of the state. In most instances these meetings have had an attendance of one hundred per cent. In fact, there have been but three absentees at these meetings and when this occurred it was unavoidable. It is what may be termed a model committee.

The committee for the control of cancer is most active and doing a wonderful piece of work. They have established a speakers bureau and have addressed numerous women's organizations and other groups throughout the state.

The scientific committee is working overtime in the preparation of an outstanding program for the Salina meeting May 8, 9, 10, which should appeal to the specialists in every line as well as to the general practitioner.

The executive committee will of necessity be very active as there will be monthly meetings for the transaction of urgent and routine business.

The remaining standing committees are outlining their plans and will soon be able to show the results of their activities.

The council at its January meeting authorized the president to appoint a committee on economics. We consider his an important committee and one that should be of great service to the membership, especially at this time.

When we, as officers, councilors and committeemen accepted our election or appointment, we accepted the responsibilities which we inherited with the office and we feel that the membership expects us to function to the best of our ability.

As your presiding officer, I pledge you my untiring efforts in the interest of the Kansas Medical Society and I beg the loyal support of the officers, councilors, committeemen and members in making this a successful year for our society.

—J. F. Hassig, M.D., President.

EDITORIAL

"SOCIAL INSURANCE"

Developments of unusual interest to the medical profession were made public on January 17 when the President in a message to Congress reported findings of his Committee on Economic Security. Likewise his promise made in June 1934 that the present Congress would chiefly consider enactment of legislation leading to greater economic security seemed well on its way to fulfilment since plans outlined completely covered unemployment insurance, old age pensions, federal aid to dependent children, the support of existing mothers' pensions systems, appropriations for services for the protection and care of homeless, neglected, dependent and crippled children, and finally additional aid by the federal government to public health agencies.

Sickness insurance was not recommended by reason the President stated he was not as yet ready to make a recommendation along that line. His committee, however, had reported fully on the subject, and it is generally understood that decision was postponed until approximately March 1 to enable additional conferences with organized medicine.

The committee report is as follows:

1. The fundamental goals of health insurance are: (a) the provision of adequate health and medical services to the insured population and their families; (b) the development of a system whereby people are enabled to budget the costs of wage loss and of medical costs; (c) the assurance of reasonably adequate remuneration to medical practitioners and institutions; (d) the development under professional auspices of new incentives for improvement in the quality of medical services.

2. In the administration of the services the medical professions should be accorded responsibility for the control of professional personnel and procedures and for the maintenance and improvement of the quality of service; practitioners should have broad freedom to engage in insurance practice, to accept or reject patients, and to choose the procedure of remuneration for their services; insured persons should have freedom to choose their physicians and institutions; and the insurance plan shall recognize the continuance of the private practice of medicine and of the allied professions.

3. Health insurance shall exclude commercial or any other intermediary agents between the insured population and the professional agencies which serve them.

4. The insurance benefits must be considered in two broad classes: (a) cash payments in partial replacement of wage loss due to sickness and for maternity cases, and (b) health and medical services.

5. The administration of cash payments should be designed along the same general lines as for unemployment insurance and, so far as may be practical, should be linked with the administration of unemployment benefits.

6. The administration of health and medical services should be designed on a state-wide basis, under a federal law of a permissive character. The administrative provisions should be adapted to agricultural and sparsely settled areas as well as to industrial sections, through the use of alternative procedures in raising the funds and furnishing the services.

7. The costs of cash payments to serve in partial replacement of wage loss are estimated as from 1 to 1.5 per cent of pay roll.

8. The costs of health and medical services, under health insurance, for the employed population with family earnings up to $3,000 a year, is not primarily a problem of finding new funds but of budgeting present expenditures, so that each family or worker carries an average risk rather than an uncertain risk. The population to be covered is accustomed to expend, on the average, about 4.5 per cent of its income for medical care.

9. Existing health and medical services provided by public funds for certain diseases or for entire populations should be correlated with the services required under the contributory plan of health insurance.

10. Health and medical services for persons without income, now mainly provided by public funds, could be absorbed into a contributory insurance system through the payment by relief or other public agencies of adjusted contributions for these classes.

11. The role of the federal government is conceived to be principally (a) to establish minimum standards for health insurance practice and (b) to provide subsidies, grants or other financial aids or incentives to states which undertake the development of health insurance systems which meet the federal standards.

Noteworthy is the adherence in most respects to the "points" adopted by several medical groups last summer. Interesting, also, is the inclusion of indigents, a feature not usually found in health insurance schemes, and the guaranty of freedom to the professions. On the other hand, are dangers to both public and profession of political administration which seem likely to intrude under any system where governmental agencies assist in the operation of private endeavor. Then too, as a matter of being practical, one wonders how the bill can be paid. It is certain that medical relief has not demonstrated ability of subsidization to care for indigents to say nothing of the state increasing its burden with 1½ per cent for health and care of the 690,000 persons gainfully employed in Kansas. Nor would a possible 3 per cent of wages to and including, $250.00 per month from employees, or a possible 1½ per cent from business seem easy.

Perhaps it can be done, and if it is done with preservation of liberty to the profession, which

the President has so far considered paramount, then perhaps we have reached the end of free indigent care; its cousin, state medicine; and of slow and unpaid obligations.

LABORATORY AND CLINICAL TESTING

In the last few decades of medical history many important laboratory procedures have been added to our armamentarium to aid us in the correct diagnosis of many pathological entities. Many of these have been in use for a number of years and are becoming more popular and even routine procedures in large clinics where there concentrated attempt is made to arrive at a diagnosis of some obscure disease.

We are all aware of the value of quantitative determinations of the blood components. Persistent high blood sugar readings with or without urine findings is significant of degenerative processes in the pancreas. But we would not make a diagnosis of diabetes upon one high blood sugar reading. One of the oldest specific tests that has withstood the ravages of time is the Wassermann reaction, which is used in the diagnosis of syphilis. It is graded in reaction from a weakly positive (1 plus) to a strongly positive (4 plus) and as much as we depend upon the Wassermann test in our diagnostic procedures we would scarcely brand every patient that we see upon whom the report of the Wassermann is 1, 2, or 3 plus, as a luetic. We know that other pathological or chemical disturbances in the body may give weakly positive reactions. We also know that some patients become Wassermann fast and regardless of the amount of anti-luetic treatment administered the result of the Wassermann test remains the same. So we have to be guarded in our assumptions and before making definite statements to our patients we must make every effort to prove or disprove the presence of a constitutional disease such as syphilis.

In 1689, Richard Morton wrote the first modern treatise on tuberculosis in which the clinical side was well considered. But the first step in laboratory diagnosis was the discovery of the tubercle bacillus by Robert Koch in 1882. This gave the physician an absolutely accurate means of making a diagnosis of an active lesion of tuberculosis. This test stands today as the only method of making a diagnosis of an active lesion in the less extensive processes without prolonged clinical observation and repeated *x*-Ray examinations.

We are now hearing quite a lot about the tuberculin reaction as though it were something new and startling. However not many years after Koch's discovery of the tubercle bacillus Calmette discovered that when a drop of an attenuated and triturated culture of the tubercle bacillus was placed in the eye, that in some individuals there was a severe reaction and that in others there was no reaction. Von Pirquet discovered that the same material when used by the intradermal or scarification method would produce a localized reaction in some and no reaction in others. Upon repetition of this procedure it was found that those in whom there was either an active or a healed lesion of tuberculosis were positive and that those in whom there had been no tuberculous activity previously gave a negative reaction.

This test has been used widely by the pediatricians for many years as a diagnostic procedure in obscure illnesses of children but has not had universal usage in diagnostic procedures upon adults because a large percentage of all adults give a positive reaction. The ratio of positive results in adults is higher in urban than rural communities because the incidence of tuberculous infections is greater.

There is a growing tendency at present to attempt to introduce a modification of this old test into widespread usage similar to that of the Schick test for diphtheria. Under many circumstances this procedure is fraught with danger unless there are facilities at hand and adequate cooperation of the positive reactors to thoroughly check the activity or latency of the tuberculous lesion present.

This is not an attempt to discredit the value of the tuberculin reaction as a diagnostic pro-

cedure in the hands of the clinician in the presence of symptoms suggesting tuberculosis or in any obscure type of illness, for a negative tuberculin reaction definitely rules out tuberculosis while a positive reaction indicates the need for further detailed study and minute observations. However, the wholesale usage of the tuberculin reaction by public minded physicians, municipal clinics and public health organizations may be questioned because it is apt to produce in many positive reactors who have healed lesions so severe a phobia of tuberculosis that it would tax to the utmost the patience and resources of the family physician to prove that their lesion was not an active one.

ADVERTISERS

We are glad to hear through different sources that the members of The Kansas Medical Society are favoring products advertised in the JOURNAL. Our paper is supported by the advertisers and their support by the readers will induce them to renew their contracts. This also will be good argument for our business manager to use in inducing other reputable firms to secure space. Increased income will permit the JOURNAL to increase its size and to furnish cuts for illustration without charge to our contributors.

ONE WAY TO SAVE MONEY

The physicians of one of the larger cities of this state were recently offered the opportunity by a good salesman to have their names printed in a registry of physicians who are in a position to handle examinations and other work for insurance companies. Of course a good fee was to be paid annually to the publishers who promised to place the book in the hands of insurance companies.

The assumption that these companies would use the list can hardly be justified since information regarding prospective examiners could be secured by some better standard than the ability to pay ten dollars for having a name listed. The insurance companies would doubtless consult the directory of the American Medical Association and get advice from the community in which the appointment was to be made.

In any case it looks as if the subscribers were getting little for their money. We suggest that Kansas physicians get off the national sucker lists in the following way: refer all such matters to the State Executive Secretary's office for information. He will make a personal investigation, consult the bureau of Medical Economics of the American Medical Association and by letter or bulletin report his findings. Such a policy will save thousands of badly needed dollars yearly to a profession that is badly bent by the present economic upheaval.

PUBLICITY OF MEDICAL AFFAIRS

Publicity of matters relating to medicine and physicians from time to time serves to focus our attention on the need for some definite plan whereby medical items of legitimate news interest may be presented to the public in accurate, simple and readable fashion without violation of the tenets of medical ethics. It must be recognized that the function of a newspaper is to disseminate items of interest and value to its readers. Editors realize (as do advertisers, all too obviously), the great interest that all people have in health and matters pertaining thereto.

Newspapers are desirous of getting and publishing accurate and news-worthy information. Accuracy of representation of scientific facts is usually as fond a desire of the press as it is of the medical profession, though at times sensationalism overcomes discretion. Traditionally the doctor has come to regard the newspaper reporter and editor as men to be shunned for fear that his comments may be distorted and misinterpreted by them in the published report of an interview. Those of us who are readers of the magazine "*Time*" realize what can be done in the way of reasonable, accurate and interesting medical reporting. Accurate and ethical presentation of medical news is by no means impossible.

The problem is not an insoluble one. One

great need is an authoritative medical body equipped to give accurate and unbiased information on topics of medical interest to the press.

Reporters and editors alike are deeply interested in the success and progress of the medical profession. They are at least in part cognizant of the ethical problems presented in the utilization of names of practicing physicians and surgeons in connection with various news stories. We have all of us fumed over mistakes in the reporting of medical matters, little has been done to correct the situation and when a reporter has attempted to obtain help in preparing a story on a medical subject a really competent representative of the profession has often felt obliged to refuse to discuss a given subject.

This matter of reporting of medical discoveries or medical news in the lay press is of utmost importance to the prestige of the profession. It should be a prime concern of the Massachusetts Medical Society to see that this is properly handled. It might be well at the next meeting of the Council to consider the feasibility of establishing a Publicity Committee which would be concerned with press releases, and form a liaison between the medical profession and the press, and would be a group to whom reporters and editors alike could turn for accurate information on medical matters.

Certainly we could be no worse off than we are at the present time. In an endeavor to interpret scientific news the average reporter or editor is as much in need of help as is the average doctor when it comes to understanding matters of publicity and newspaper practice. In an experience of some years with Boston papers the writer has had uniformly courteous consideration and real effort has been made by the press to meet the demands of accurate and ethical medical publicity. We must coöperate with the press or have only ourselves to blame for the raising of false hopes in thousands of sufferers and ultimately, through too many false heraldings of the dawn, to see all medical discoveries viewed with skepticism.—*From the New England Journal of Medicine.*

MEDICAL SCHOOL CLINIC

POSTOPERATIVE DILATATION OF THE STOMACH

WILFRED C. CURPHEY, M.D.*
Kansas City, Kansas

One of the most important contributions to surgery was made in 1869 by Kussmaul[1] when he described the use of the stomach tube. The efficacy of this instrument has recently been greatly enhanced by its use with constant suction. Without question, continued gastric lavage with suction is the most effective therapeutic measure in the treatment of the condition to be discussed.

Acute dilatation of the stomach was first described by Duplay[2] in 1833. Mechanical obstruction as a causative factor was first suggested by Rokitansky[3] in 1842. More recently Kellogg[4] has again championed such a theory even in face of the reports of many experimenters whose results point to motor paralysis or the "nervous mechanism" theory of Briton.[5] It is a rather common postoperative complication of serious import as shown by Conner and Loffer[6, 7] who respectively report 67.5 per cent mortality in a series of 319 cases. It is doubtful if the medical profession has given this condition quite enough consideration, since in the past five years at least twice as much space in medical literature has been awarded postoperative pulmonary atelectasis, rarely fatal, as has been given acute gastric dilatation, a fatal complication if unrecognized and not uncommonly fatal even when carefully treated.

It should be kept in mind that acute gastric dilatation is not only associated with surgical procedures, but may follow any type of trauma or debilitating disease and should be constantly watched for if an early diagnosis is to be made. The first symptom is usually tachycardia associated with epigastric distress and distention. That tachycardia and cardiac arrhythmia should occur is perfectly logical in view of the fact that such dilatations of the stomach have been experimentally produced by simply cutting the vagus nerve. In fact, cardiac arrhythmias have been produced in dogs by forcibly dilating the stomach.[8] The most characteristic symptom is the typical overflow vomiting which follows continued gastric dilatation. At first the vomiting may be periodical but finally

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constantly recurs every few minutes without the usual wretching and gagging. Often the patient will be observed to hold an emesis basin into which he constantly expectorates mouthfuls of gastric contents. Frequently the first sign of this overflow is the stain of gastric contents at the angles of the patient's mouth, similar to the telltale sign of the tobacco chewer. Alkalosis soon follows continued vomiting. This is associated with dehydration, depletion of chlorides, not uncommonly toxic nephritis and untimely death.

The case to be presented was one in which gastric ileus developed following a very minor surgical procedure. Death was apparently a result of uremia due to nephritis.

CASE REPORT

A colored male, age forty-nine, was admitted to the University of Kansas Hospital on October 18, 1934. The chief complaint was difficult urination and inability to void for the past two days. Eight years previously he had had a similar complaint and at that time was treated for a urethral stricture in the out-patient department of this institution. Sounds were passed at that time and the symptoms were completely relieved until two weeks before admission to the hospital. According to his past history, he had had an acute urethritis sixteen years previous to admission.

Physical examination at the time of admission revealed no abnormal findings other than a slight rise in blood pressure and a urethral stricture. On the second hospital day, a filiform catheter was passed into the bladder and followed by a number eighteen LaFort sound. This passed with little difficulty. That afternoon the patient developed a chill and the temperature rose to 104 degrees. On the three succeeding days, chills recurred and the temperature rose to 104 degrees on each occasion. The urine was examined and found to contain a large quantity of pus. A blood chemistry study revealed non-protein nitrogen of 161.6 milligrams, urea 100 milligrams, creatine 5.8 milligrams and a carbon dioxide combining power of 40. On the third postoperative day, the heart began to fibrillate and the patient was immediately digitilized. On the same day the patient began to vomit and a very definite upper abdominal distention was noted. A Levin nasal tube was passed and 1700 cubic centimeters of fluid and large quantities of gas were removed from the stomach. A diagnosis of acute dilatation of the stomach was made and the following treatment instituted. Continuous gastric suction, 3,500 cubic centimeters of fluid daily, consisting of 2,000 cubic centimeters of normal saline solution by hypodermoclysis and 1500 cubic centimeters of five per cent glucose solution intravenously. Morphine sulphate, grain one-sixth was given every three hours. Within thirty-six hours the gastric dilatation was completely controlled. Cardiac fibrillation had ceased. The signs of uremia were more marked, however, so the above therapeutic regime was continued. Coma developed and the patient died on the eighth postoperative day.

Many methods of treatment have been utilized in combating this condition. Ergot, esserin, pituitrin and recently pitressin have all been suggested and used to stimulate the emptying power of the stomach and bowel. Repeated gastric lavage has been advocated but this relieves the strain only at intervals. Constant gastric siphon drainage by nasal tube has also been widely used. The latter does not adequately empty the stomach of both liquid and gas. The most effective procedure is one which utilizes continued drainage by supplying a source of constant suction which forcibly empties the stomach and keeps it empty until its tone can be regained. When this method is in use the stomach can be constantly washed by allowing the patient to drink water at will. In addition to the mechanical emptying of the stomach, careful attention must be given water and chemical balance. Dehydration may be extreme and loss of chlorides from the stomach may result in marked hypochloremia. Water and sodium chloride are given by vein and under the skin daily. The quantity of chloride to be given can be controlled by frequent blood chloride estimations. As a supportive measure glucose is used in five per cent solution by the venoclysis method.

Several types of suction apparatus for this purpose have been described such as that of Ward[9] or Wangensteen[10] but I believe that the most practical and most generally useful is the one that Dr. Orr and I have recently described.[11] This instrument requires no additional bedside apparatus other than the bedside table; it segregates the gastric contents, thus affording cleanliness as well as permitting an accurate estimation of the gastric secretions lost; it can be assembled by anyone in a short time and at little expense. It is extremely simple to operate, requiring little attention which is extremely important in a busy hospital (Figure I).

In this hospital the routine care of acute gastric ileus may be outlined as follows: Continuous gastric lavage with suction; regular doses of morphine to increase gastrointestinal tone; thirty-five hundred to four thousand cubic centimeters of fluids daily as physiologic sodium chloride solution and five per cent glucose solution. Two thousand cubic centimeters of saline are usually given by hypodermoclysis and 2,000 cubic centimeters of five per cent glucose in water or saline intravenously. The amount of salt to be given is controlled by repeated blood chloride determinations. As soon as the patient's condition seems to warrant removal of the Levin tube the stomach may be tested by clamping the tube for three hours intervals and then measuring the amount of residue aspirated. If the stomach is emptying properly the treatment may be discontinued.

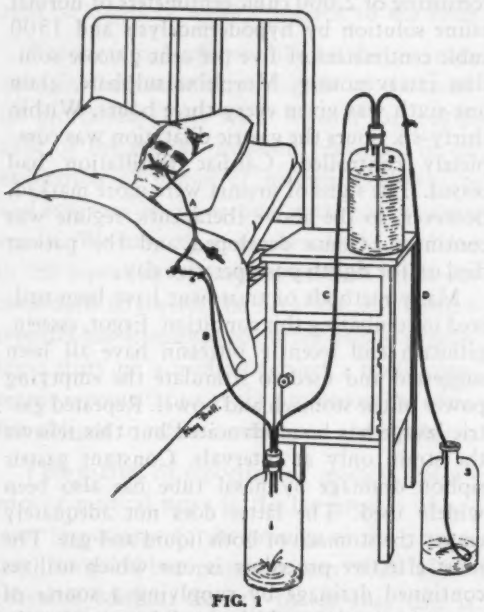

FIG. 1

Suction apparatus used for gastric and duodenal decompression and lavage. A. Levin tube with Y-tube attached for ready cleansing with syringe. B. Rubber tube leading from patient to waste bottle No. 1. C. Rubber tube connecting waste bottle with water supply bottle No. 2. D. Rubber tube connecting water supply bottle with overflow water bottle No. 3. Bottles No. 2 and No. 3 are interchangeable to avoid new supply of water when No. 2 runs low. Tube D. Kept filled with water with lower end immersed in water of bottle No. 3 to maintain continuous suction.

In the case described above, the suction treatment was continued after the gastric dilatation had subsided. This was done as a therapeutic measure to aid in controlling the uremia which had developed. Gastric suction relieves the vomiting so frequently produced by uremia and it also offers another outlet for the elimination of nitrogenous products. It is felt that since these elements are excreted into the stomach in uremia they may be partially removed by constant gastric lavage. The accuracy of this last statement is open to question, and work is being done at the present time to determine the logic of such a procedure.

SUMMARY

1. A case of acute dilatation of the stomach, following a very minor surgical procedure, is reported.

2. An effective method of treatment of such cases is outlined. Especial reference is made to the desirability of the use of continuous gastric lavage with suction.

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LABORATORY

FUNCTIONAL EXPLORATION OF THE GASTRO-INTESTINAL TRACT

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GENERAL METHODS

Since Spallanzani's conception that the digestion of foods is due to gastric secretion and his attempt to make rudimental analysis of the gastric contents in animals and the physiological systemic studies of the school of Pavlow, the analysis of gastric contents became a part of medical practice, adding a large contribution to the knowledge of gastric diseases. The determination of total acidity, free hydrochloric acid, pepsin and lab ferment, together with the presence of abnormal acid products, blood, bacteria and neoplastic cells, are all too well known to need further mention here.

The analysis of the duodenal content, introduced in the practice by Einhorn in 1909, is valuable not only in bringing to light disturmances of the first portion of the intestinal tract but also disturbances due to hepato-pancreatic insufficiency. For this analysis the pa-

tient must be fasting for a period of twelve hours previous to the test. Upon withdrawing the duodenal fluid the general characteristics are determined. The color is influenced, first by the presence of biliary pigments and varies according to conditions which will be mentioned later, or by the presence of biliverdin, admixtures of gastric juice or blood. The appearance, the amount, the rhythm of flow, the consistency, specific gravity and reaction varies much in different disease and will be discussed later. Analysis may reveal presence of blood, albumin, mucin, pus cells or pathogenic bacteria. Through the introduction into the duodenum of one to four cc. of sulphuric ether, the pancreatic secretion can be stimulated and through the introduction of thirty cc. of a five per cent solution of peptone or, preferably, fifty cc. of a sterile twenty-five per cent solution of magnesium sulphate, hepatic secretion is stimulated, giving information on the concentration of ferments as lypase, amylase and trypsin and of possible hepatic and pancreatic insufficiency.

After the introduction into the duodenum of magnesium sulphate the fluid obtained by aspiration in the first ten minutes is of a golden yellow color and of low viscosity. This fluid is designated as Bile A. After waiting ten or twenty minutes the fluid obtained by aspiration will be more abundant and darker in color as well as rich in biliary pigments and more viscous. This has been designated as Bile B. Ten or fifteen minutes later, the fluid aspirated will be clearer than Bile B, and very similar in aspect to Bile A. This has been designated Bile C. According to various authors Bile A is an admixture of the contents of the common duct with the magnesium sulphate solution, Bile B is the pure contents of the gall bladder, Bile C is from the contents of the hepatic ducts and liver. This test, which may be performed in hospital practice, throws light on the functions of the hepatic system, particularly of the gall bladder, submitting to chemical, microscopic and bacteriological examination the different fluids extracted from the duodenum.

Urinalysis will show increased amounts of aromatic products (indol, scatol) in case of gastro-enteric disturbances, urobilinogen and urobilin, biliary pigments and biliary salts may show a diminished output, together with variation of total acidity, increased amount of pancreatic amylase and glycosuria. This last condition is very seldom found in case of total insufficiency of endocrine and esocrine secretion of the pancreas.

Blood examination will show presence or absence of pancreatic ferments, presence or absence of bilirubin. The recently developed Vander Bergh test for hyperbilirubinemia has proved very useful in laboratory methods, because of the possibility of making differential diagnosis by this means of the various forms of jaundice. Hepatic insufficiency will be spoken of later.

The coprological examination has a place of the first order in gastrointestinal pathology, the importance of which has been unrecognized by the general medical practitioner. As a result, it is less frequently resorted to than it deserves, except for bacteriological or parasitological examinations. In this brief survey of the functional exploration of the gastro-intestinal tract I shall limit the discussion to the biochemical aspects of the problem, which is the most important.

Although not absolutely necessary it would be advisable to have the patient under observation for a few days previous to the test. They should be placed on the Schmidt test diet which is most complete and is as follows:

(1) Morning: 0.5 liter milk and 50 gm. toast. (2) Forenoon: 40 gm. oatmeal, 10 gm. butter, 200 cc. milk, 300 cc. water, one egg and salt to taste. (3) Noon: 125 gm. hamburger steak, with 20 gm. butter, fried so that the interior is quite rare; 250 gm. potatoes, made by cooking 190 gm. potato with 100 cc. milk and 10 gm. butter, the whole boiled down to 250 cc. (4) Afternoon: Same as morning. (5) Evening: Same as forenoon.

At the beginning of the diet the stool should be marked off by the administration of 0.5 gm. of powdered charcoal, watching for the first colored stool.

The aspect and color of the feces are sometimes decisive characters in certain diseases; for example, risiform in cholera and bacillary dysenteries, mucous and muco-membranous in certain forms of entero-colitis, muco-sanguinolent in certain stages of amebic and bacillary dysenteries, purulent in infectious and neoplastic entero-colitis, greasy in hepatic and pancreatic insufficiency. The odor may be very fetid in case of increased putrefactive processes. The reaction, normally neutral or slightly alkaline, may be acid in dyspepsia or fermentation or strongly alkaline in putrefactions or in abundance of mucus. An important diagnostic point is the determination of the amount of nitrogen

in the feces, at the same time that the nitrogen in the urine is estimated. This may reveal abnormal wastes, due to cachexia or other exhaustive diseases. The determination of various fractions of fats, of pigments, particularly of urobilinogen and other biliary pigments and hematic pigments should be made at the same time also in the urine and the blood. The microscopic examination of the feces gives an idea of the total digestion and of abnormal products present at different levels of the gastrointestinal tract. Without entering into technical details microscopic examination may reveal cells and fibres coming from vegetables, grains, of starch, muscular fibres with their characteristic striations, elastic and connective tissue fibres, droplets of neutral fats, crystals of fatty acids, crystals of cholesterin, calcium oxalate and ammonium-magnesiac phosphate, neoplastic cells, etc. Furthermore the determination of the ferments may give an indication of absence or normality of pancreatic secretion. In order to interpret results, an outline is given of the findings of the various organs.

GASTRIC INSUFFICIENCY

Analysis of the gastric content may reveal an increase of HCl or a decrease in the total acidity in the gastric neuroses. A decrease or a total absence of HCl is symptomatic of gastric carcinoma or pernicious anemia. This last is mentioned here because the writer believes in the gastro-intestinal origin of pernicious anemia. Besides the HCl, free and combined, and the total acidity, the determination of the pepsin and lab ferment may give an idea of the digestive power of the gastric juice. The investigation of the lactic acid and the microscopic examination of the sediment for the Boas bacilli or neoplastic cells, pus or blood cells, may reveal the presence of carcinoma. The finding of starch granules, muscular fibres or vegetable cells in the gastric content during fasting are pathognomonic of stagnation due to obstruction.

Although it is very common to take the gastric contents after a test meal, it is also useful to leave the patient fasting for at least twelve hours and then inject 1 cc. of 1 to 1,000 histamin solution. In about ten to fifteen minutes histamin will stimulate the secretion of an abundant fluid which has the advantage of being free from any admixture of food residues. Besides, in case of gastric ulcer, the secretion may reach in one hour the large amount of 250 to 800 cc. of fluid.

The cromoscopic test also may give indication of gastric function because in the case of hyperchlorhydria, the dye appears in the gastric fluid eight or ten minutes after its subcutaneous injection while it is noticeably delayed in cases of hypochlorhydria.

The examination of feces may reveal the presence of connective tissue and vegetable fibres which, due to the fact that they are digested only by gastric ferments, will indicate gastric insufficiency, if their number is great.

ENTERIC INSUFFICIENCY

The analysis of duodenal contents will show the acidity of the fluid, the presence of albumin, pus cells, mucin or bacteria. Coprologic examination will give an idea of the absorption of foods. The feces may be risiform in cholera and dysentery, mucous or muco-membranous in cases of entero-colitis, muco-sanguinolent in case of amebic and bacillary dysenteries, purulent in cases of infectious entero-colitis. The reaction is alkaline when the mucus or putrefaction are abundant. The presence of enormous amounts of starch granules, mostly undigested, will indicate a defective amylolytic power. The presence of blood is not always pathognomonic of intestinal lesions, as the blood may come from the upper tract. Care should be exercised to distinguish fresh blood of the last portion of the large intestine from old blood coming from higher sections. The presence of soluble albumin in feces is pathognomonic of an ulcerative condition (typhoid, tuberculosis, ulcerative colitis, etc.) The time of passage of the meal through the gastro-intestinal tract may be ascertained by giving 0.5 gm. of powdered charcoal and watching for the resulting black stool.

Examination of the urine will show increased acidity and presence of aromatic bodies, indol, scatol, etc., increased uric acid and decreased output.

PANCREATIC INSUFFICIENCY

Examination of the duodenal contents will show presence or absence of pancreatic ferments; a previous injection of 1-4 cc. of sulphuric ether in duodenum will increase the pancreatic secretion. In the case the duodenal contents cannot be examined, due to the difficulty of manipulation or to the desire of the attending physician to avoid inconvenience to the patient, the examination of feces should not be neglected, this examination being the most important after that of the duodenal contents.

It will yield valuable information about the pancreatic function.

The feces contain an enormous amount of neutral and acid fats which are recognized by the typical aspect of liquid, oily matter which solidifies on standing (steatorrhea). The fats can be recognized either by chemical or microscopic examination. In addition to these findings, which are important in the diagnosis of pancreatic insufficiency, there will be noted numerous striated muscular fibers and an increased excretion of nitrogen. The Schmidt nuclei test, based upon the fact that nuclei are digested only by the pancreatic trypsin, is not always reliable and does not give more information than the tests above mentioned. The estimation of pancreatic amylase is very important and the most satisfactory method is as follows:

Upon the evening before the test give light supper and a high enema.

At 7:00 next morning 750 cc. of milk; at 7:30 ½ oz. of Epsom salts, same at 8:00; at 8:30 glass water, in which has been added ¼ teaspoonful of sodium bicarbonate. Save all the feces passed up to two p.m. and preserve with toluol in a cool place. Simultaneously collect urine and blood for similar test.

Absence of amylase in the feces, while the same is present in large amounts in the blood and urine, indicates an obstruction of the pancreatic ducts; simultaneous absence of amylase in feces, urine and blood indicates complete pancreatic insufficiency. The presence of hyperglycemia with absence of pancreatic ferments indicates a grave atrophy of the pancreas, which is rare. The physician should not rely on hyperglycemia to make a diagnosis of pancreatitis, but should resort to the complete examination of feces, urine and blood (estimation of ferments, fats and nitrogen) to make certain that pancreatic insufficiency is the cause.

HEPATIC INSUFFICIENCY

We shall discuss here biliary secretion only as related to the digestive function in order to remain within the limits assigned to this paper. The examination of the duodenal contents will give the following information. On the withdrawal of fluid the absence, or very small amount, of Bile B may indicate an obstruction of the cystic duct or an absence of contraction of the gall bladder. An increased flow of Bile B of darker color may indicate a stasis in the gall bladder. Urobilinogen, normally absent, may be present in cases of cholecystitis or cholangeitis. In the sediment the presence of leukocytes or germs indicates a cholangitis or a cholelithiasis. In the latter case crystals of bilirubin and cholesterin may also be found.

Examination of the urine will show presence of bilirubin in cholelithiasis, biliary acids in mechanical icterus, urobilin in cholecystitis and angiocholitis, while the absence of urobilinogen indicates a complete obstruction of the choleduct or a very severe hepatic lesion.

Examination of feces will show absence of stercobilin or stercobilinogen in case of complete obstruction of the choleduct with presence of insoluble soaps, decrease of bilin and bilinogen in case of angiocholitis or incomplete obstruction. The examination of the blood should be undertaken for the determination of hemoconia in the plasma and bilirubin and cholesterin in the serum.

In case of biliary retention the dark-field examination of the plasma will show the absence of hemoconia which are normally present after a meal rich in fats.

The bilirubin test is well known under the name of Van der Bergh's test. The reaction is direct positive in cases of obstructive jaundice, delayed or biphasic in toxic jaundice and indirect in cases of hemolytic jaundice. Much discussion is present as to bilirubins revealed by Van der Bergh's reaction but it is the opinion of the writer that the difference in reaction is due to physico-chemical factors and not to the presence of various bilirubins in the blood. It has been shown by Enriques, recently, that the addition of caffeine to the diazoic reagent causes the appearance of the characteristic color at once, so that a direct reading is possible in case of hemolytic jaundice, while the old method permitted only an indirect reading. Determination of cholesterin will show an increase of such element in case of obstructive jaundice.

In conclusion, the functional exploration of the gastro-intestinal tract offers numerous tests which have been found useful in clinical diagnosis. Their basic principle depends upon the physiology of the alimentary canal and their application to the pathology of the gastro-intestinal tract is the principle of modern medicine, which derives from these two branches, physiology and pathology, exact knowledge of human disease.

TUBERCULOSIS ABSTRACTS

BRONCHIECTASIS—A SEPTIC TANK

The causes of bronchiectasis have long been a subject for discussion, pathological studies, and clinical research. These causes are well known, even if not conclusively proved, and they therefore do not need comprehensive presentation here. There are a few features, however, that do not seem to be generally recognized.

Broadly speaking, the etiological factors generally considered responsible for bronchiectasis include:

1. Congenital factors,
2. Infection, including predisposing causes thereto, foci in sinuses, teeth, tonsils, etc.,
3. Pathological changes in the bronchial wall,
4. Pathological changes in the peribronchial tissues,
5. Obstruction: trachea, bronchi, glottis,
6. Stagnation of secretions,
7. Positive endobronchial air-pressure.

To these should be added a factor largely overlooked, namely, (8) the viscosity of certain bronchial secretions.

In a well developed bronchiectasis three groups of organisms are involved: (1) the primary organisms in the primary focus; (2) the secondary saprophytic organisms that reduce viscosity; and (3) the organisms producing the pus that results from irritation of the bronchial mucosa by the biochemical products of the saprophytes.

The last of these groups has not been generally recognized. When a mucous membrane, such as the bronchial mucosa, is kept in contact with any irritant material, pus is produced. The dilated bronchial sacs are in effect what the sanitary engineer calls septic tanks in which the biochemical products of the saprophytic organisms reduce the viscosity of the secretion, irritate the mucosa and produce pus swarming with organisms. The putrefactive organisms are not the primary ones but enter by way of the inspired air and by means of secretions of the mouth that are normally inspirated by everyone during sleep.

The unsatisfactory results of bacteriological studies on bronchiectasis have been attributed to oral contamination, but another factor is that the primary pus is not expectorated at all because of its high viscosity. It remains in the bronchiectatic septic tank until its viscosity is reduced by putrefaction.

Obviously, the method of obtaining material for bacteriological study is important. By means of the bronchoscope the superjacent pus, which always contains a variety of secondary organisms is first aspirated. Then when additional pus is forced in from the peripheral bronchi by the tussive squeeze (cough), this is collected separately. In it the saprophytes are relatively few and the odor usually is absent. In the residual pus are usually found the important organisms, time after time the same in the same patient. Vaccines prepared from them are of relatively much higher therapeutic value as compared to those from either sputum or the superjacent pus.

Bronchiectatic sputum is generally described as not being very adhesive. This may be true of expectorated sputum but not of the pus when first produced in the bronchi. Before saprophytic changes have taken place in the "septic tank" bronchiectatic pus is of tremendously high viscosity. This tenaciousness is a basic etiological factor in the disease. Because of it the pus cannot be efficiently expelled by cilia or bechic blast until its viscosity is diminished by putrefactive processes. The septic tank is not only a receptacle for septic materials but a container where bacterial processes change the character of the contents. These changes in the secretion constitute nature's way of rendering it easier of expulsion by reducing its viscosity. Unfortunately, however, they also render it more irritating and the stagnation of this irritating material promotes pathological changes in the bronchial walls, and thus constitutes an important etiological factor in bronchiectasis. The bronchiectatic septic tank exacts a fearful price for drainage.

PROPHYLAXIS AND TREATMENT

The removal of the viscid pus with a powerful aspirator should be instituted early in any suppurative disease of the bronchi. If, after the acute stage of any bronchial or pulmonary infection is over, there is not a progressive improvement in the signs, symptoms and roentgen-ray findings under medical care and management, including as it should postural drainage, bronchoscopic drainage should be instituted once or twice a week. This will often restore the defensive power of the lung and thus turn the tide.

To this should be added the administration of vaccines prepared from the material removed by the bronchoscope from the depths of the suppurative focus. Opiates that annihilate the cough reflex and drugs, such as atropin, that thicken the secretions should be omitted.

Of utmost prophylactic importance is of course the elimination of infective foci in the teeth, tonsils and nasal accessory sinuses. It has been abundantly proved that in suppurative diseases of the bronchi and lungs the source of the infection is a focus in the region of the upper air-passages and there is much evidence to show that the route travelled is by the lymph channels as well as the air-passages. Prophylactic measures, therefore, are wisely undertaken, (1) before the onset of suppurative bronchial disease; (2) after the first bronchial symptoms; and (3) after bronchiectatic conditions have developed, to prevent reinfection and recurrence.

As in the prophylaxis of tuberculosis, all details of continuous medical care and management are of utmost importance; but they need no enumeration here. They should include prolonged daily rest in bed under outdoor conditions to increase resistance and build up a reserve.

It is of fundamental prophylactic importance for early diagnosis of every bronchopulmonary disease that every case of cough be run down to a definite cause and a definite lesion if possible. This is hypotheically admitted but practically it is not often done.

The prognosis is greatly improved by the use of bronchoscopic methods including (1) study of the local pathological conditions; (2) the elimination of the aggravating processes of the septic tank and (3) the discovery and cure of obstructive conditions.

If prophylaxis has been neglected and the septic tank condition has been established through study with the bronchoscope, including search for the underlying cause and an appraisal of the damage already done, is advised. Separate specimens are taken of the superjacent pus and the residual pus. Vaccines are prepared from the organisms predominating in the residual pus.

Local medication, using diluted neoarsphenamin, acriflavin, or other germicides may be helpful. The usual management of bronchiectasis is, of course, essential. The patient should be kept in bed under outdoor conditions the greater part of the day. Postural drainage should never be neglected and if possible it should be used at every coughing paroxysm. The cough should not be inhibited; in fact when a patient feels a paroxysm of coughing coming he should at once assume the most favorable posture and assist expectorative efficiency to the utmost.

Furnished by National Association for Prevention and Cure of Tuberculosis.

MEDICAL LITERATURE

Edited by William C. Menninger, M.D.

NEW ENCEPHALOGRAPHIC TECHNIQUE

Much of the objection to the present encephalographic method used is the serious discomfiture of the patient. Castex and Ontaneda report a new method in which there is an insufflation of the air by a double puncture method of both the cistern and the lumbar regions. Their system is based on the existing difference of tension between the fundus of the dural cavity and the cistern. They attach a glass container filled with air connected to a needle and inserted into the cistern and another needle into the dural cavity. Then the lumbar liquid will pass into the glass container due to its lighter pressure, dislodging the air harbored in it and then it sends this air into the cistern and finally into the endocranium without practically altering the endocranial tension. They have tried this method on one hundred cases and found it very satisfactory.

Castex, M. R. and Ontaneda, L. E.: NEW ENCEPHALOGRAPHIC TECHNIQUE: Insufflation of Air by the Double Puncture Method—Cisternal and Lumbar Combined. Radiology 23:551-557 (Nov.) 1934.

TREATMENT IN OCCLUSIVE VASCULAR DISEASES OF EXTREMITIES

This paper is a report from the Michael Reese Hospital Clinic, Chicago, and is based on the treatment used in one hundred cases of organic occlusive vascular disease that have been under care for six months or more. They discuss various methods of treatment for these different conditions. The first consists of a regime of rest, contrast baths, Buerger's exercise several times daily and heat locally in the form of a baker at home. Patients who do not improve under this regime are given a more radical form of treatment such as typhoid vaccine or hypotonic sodium chloride solution intravenously. They have used acetylcholine and tissue extract with fair results in a few cases of arteriosclerotic ischemia and thrombo-angiitis obliterans. Deep roentgen therapy in the region of the lumbar

sympathetic chain was given in several cases which did not improve on any of the other forms of treatment. In those individuals troubled with pains in the extremities they found that a peripheral nerve block either by the injection of alcohol directly into the trunk or by crushing or cutting the nerve, would give relief lasting from three to twelve months. Another minor operation to relieve pain is the ligation of the popliteal vein. Seventy-one per cent of one hundred cases improved.

Perlow, S.: CONSERVATIVE TREATMENT IN OCCLUSIVE VASCULAR DISEASES OF THE EXTREMITIES. Results in 100 cases. Annals of Internal Medicine 8:741-746 (Dec.) 1934.

CAUSES OF COMA

The causes of coma in 1,167 patients entering the Boston City Hospital in 1933 were studied and analyzed. Of this group alcohol was responsible in 59.1 per cent; trauma in 13 per cent; cerebrovascular lesions in 10.1 per cent, and the last two made up more than one-half of the non-alcoholic comas. Other causes included poisoning, epilepsy, diabetes, meningitis, pneumonia, cardiac decompensation, exsanguination, syphilis of the central nervous system, uremia and eclampsia.

Solomon, P. and Aring, C. D.: THE CAUSES OF COMA IN PATIENTS ENTERING A GENERAL HOSPITAL. Am. J. Med. Sc. 188:805-811 (Dec.) 1934.

BLOOD SUGAR VALUES OF THE RELATIVES OF DIABETICS

The authors of this paper, Drs. Pincus and White, have been carrying on a series of studies on the inheritance of diabetes in Dr. Joslin's Clinic in Boston. This is the third of these studies. They examined 169 close relatives of known diabetics. Approximately fourteen per cent of the group of relatives were given routine blood sugar examinations and twenty-five per cent of those given sugar tolerance tests had abnormally high blood sugar values when compared with similar determinations made upon control groups of normal, healthy persons with no family history of diabetes incidence. They believe that if these tests have any general significance they indicate that the establishment of normal blood sugar values requires the strict exclusion of relatives of diabetics from the group of persons supplying the data.

Pincus, G. and White, P.: THE INHERITANCE OF DIABETES MELLITUS. III. The Blood Sugar Values of the Relatives of Diabetics. Am. J. M. Sc. 188:782-790 (Dec.) 1934.

TREATMENT OF WHOOPING COUGH

These writers from the Department of Pediatrics of the University of California Medical School report on the treatment of 232 patients in the out-patient clinic with pertussis with undenatured pertussis antigen. These patients were under close observation and the diagnosis was based on symptomatology, blood counts, and cross plates. They established criteria in judging their results: good results consisted in the abatement of severe symptoms within one week or less; fair results, abatement within two weeks; poor results, persistence of severe symptoms for over two weeks. On this basis they observed approximately seventy-eight per cent of good, fourteen per cent of fair and eight per cent of poor results in patients seen during both the catarrhal and the paroxysmal stages of the disease. Of eighteen patients with no previous history of whooping cough and with intimate exposure to the disease in their own family, eleven showed no symptoms and seven had extremely light symptoms.

Stallings, M. and Nichols, V. C.: TREATMENT OF WHOOPING COUGH WITH AN ACTIVE UNDENATURED ANTIGEN. Am. Jr. Dis. Child. 48:1183-1192 (Dec.) 1934.

SYPHILIS OF THE LUNG

Syphilis of the lung is rare and questionably demonstrated short of the autopsy table. This author presents the case of a colored man of thirty-eight which presented the symptoms of a chronic, tuberculous pulmonary infection but responded symptomatically to anti-syphilitic treatment. He had a positive Wassermann and this eventually became negative although the *x*-Ray revealed little if any change in the shadow of the right base of his chest. The picture was complicated by a syphilitic aortitis as well as a mitral stenosis and insufficiency. He regards the case as one of pulmonary syphilis.

Homan, R. B., Jr.: PULMONARY SYPHILIS, Report of a Case. Southwestern Medicine 18:379-381 (November) 1934.

AVERTIN IN PRE-ANESTHETIC MEDICATION

These writers from the Department of Pharmacology of Western Reserve University report on 1,831 surgical anesthesias in which avertin was used in the pre-anesthetic medication. They detail the pulse rate, blood pressure, respiration, restlessness, postoperative sleep, nausea and vomiting, urinary findings in this large series of cases, as well as observations on various surgical groups. All of the patients were given morphine and atropine and avertin in doses from 50 mgm. to 100 mgm. per kilog. of body weight, in many instances supplemented with several types of general anesthetic. They report the advantages as well as the disadvantages; among the disadvantages they notice albumin in thirty per cent of cases and casts in seven

per cent. Also there was a rather significant fall in the blood pressure and a definite depression of the respiratory volume. The combination, however, of these drugs reduced the frequency of pulmonary complications significantly as compared with morphine-ether sequence. The duration of postoperative sleep bore little relation to the dose of avertin used and postoperative restlessness was observed in from twenty per cent to sixty per cent of the patients, tho was not troublesome from a nursing standpoint.

Barlow, O. W., Fife, G. L., and Hodgins, A. C.: AVERTIN IN PRE-ANESTHETIC MEDICATION: A survey of 1,831 Surgical Anesthesias. Archives of Surgery 29:810-827 (Nov.) 1934.

TREATMENT OF INFLAMMATIONS BY X-RAY

Anyone interested in treating any sort of inflammatory reaction by *x*-Ray would be interested in the very extensive review of the literature given by Dr. Watkins in this article. He summarizes very briefly the various forms of inflammatory disease which have been treated by *x*-Ray therapy, according to the year and also giving the author and the reference in the literature. These, then, are all grouped together and briefly discussed, and the article is more of a review of the literature than it is any original work on the part of the author. He takes a conservative attitude in recommending *x*-Ray treatment, stating that while it may be very important and often highly essential, nevertheless it should be integrated in a proper relation to other general and local measures.

Watkins, W. W.: TREATMENT OF INFLAMMATIONS BY X-RAY. Southwestern Medicine 18:336-346 (October) 1934.

MUMPS MENINGO-ENCEPHALITIS

The author reports a summary of seven cases of mumps meningo-encephalitis all of which recovered. In these cases the meningeal symptoms coincided with the swelling of the parotid glands in only one instance, while in the other six the former succeeded the latter in from one to seven days. All patients showed some swelling of the parotid glands. He believes that the incidence of meningo-encephalitis varies with different epidemics of mumps and it is erroneous to regard it as a complication of mumps; rather the infection is apparently due to a virus which has a predilection for the salivary glands, the meninges, the pancreas, the encephalon and the mature gonads. In any event fatalities have been rare.

Montgomery, J. C.: MUMPS MENINGO-ENCEPHALITIS. Am. J. Dis. of Children. 48:1279 1283 (Dec.) 1934.

ACUTE LEUKEMIA WITH PRIMARY SYMPTOMS IN THE RECTUM

The first manifestation of leukemia is admittedly a difficult thing to recognize although it is generally known that the majority of cases show some difficulty in the nose or throat, particularly in the tonsils. These writers report a case in which the first symptoms were hemorrhoids with a prolapse and treated as such; only secondarily did they determine that the man's chief difficulty was his acute leukemia. This was a male, age forty-nine, whose moderate anemia was attributed to his hemorrhoids. During a period of six weeks between his first operation and his readmission his white count had risen from 8,500 to 207,500. The case ended fatally.

Walsh, G. and Stickley, C. S.: ACUTE LEUKEMIA WITH PRIMARY SYMPTOMS IN THE RECTUM, A Rapid Increase in the White Cells and a Fatal Outcome. Southern Medicine and Surgery 96:648-649 (Dec.) 1934.

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NEWS NOTES

STATE MEETING PROGRAM

Members of the Kansas Medical Society will meet at Salina, May 8, 9, and 10 for one of the most interesting and unusual state meetings in the history of the Society. Special care has been taken in the selection of the speakers and also in plans for the program by way of entertainment for those attending.

The following is a list of the guest speakers who will appear on the programs:

C. H. Warfield, M.D., B.S., Chicago
Assistant Professor of Medicine at Loyola University Medical School, and Professor of Roentgenology of Cook County Graduate School of Medicine. Director of Department of *x*-Ray, Cook County Hospital. Member of Chicago Medical Society, Illinois State Medical Society, American Medical Association, and Chicago Roentgen Society. Graduate of University of South Dakota. Received Medical Degree from Northwestern University School. Interned two years at Wesley Memorial Hospital, and specialized two years in *x*-Ray at University of Michigan.

Sanford R. Gifford, M.D., M.A., F.A.C.S., Chicago
Professor of Ophthalmology, Northwestern University Medical School. Attending Ophthalmologh at Passavant, Wesley, Evanston, and Cook County hospitals.

A. Carlton Ernstene, M.D., A.B., Cleveland
Member of Staff of Cleveland Clinic as Associate Physician in Cardio-Respiratory division. Member of the American Society for Clinical Investigation, American Heart Associaton, Society for Experimental Biology and Medicine, American Association for the Advancement of Science, and Fellow of the American Medical Association.

Oswald Swinney Lowsley, M.D., B.A., New York
Director of Department of Urology, James Buchanan Brady Foundation, New York Hospital; consulting urologist, hospital for the ruptured and crippled, Stuyvesant Square Hospital, and New York Infirmary for Women and Children, New York. Peekskill Hospital, Jamaica Hospital, King's Hospital, Nassau Hospital, Mineola and Bloomingdale Hospital, Monmouth Memorial Hospital, Fitkin Memorial Hospital, Norwalk General Hospital, and Stamford Hospital.

James B. Costen, M.D., A.B., St. Louis
Instructor in Oto-laryngology, Washington University School of Medicine. Assistant in Oto-laryngology, Barnes and St. Louis Children's Hospital, Surgeon to out patients, Washington University Dispensary; Consultant in Oto-laryngology, St. Luke's Hospital.

George Crile, M.D., LL.D., M.CH., F.R.S.C.
(Eng., Ire.) D.S.M., 3rd Laureate of Lannelongue Foundation of the Societe Internationale de Chirurgie, de Paris, Cleveland. Western Reserve University of Medicine, Director, Cleveland Clinic Foundation, Surgeon, Cleveland Clinic Hospital.

Wm. D. Haggard, M.D., D.C.L., Nashville, Tenn.
University of Tennessee College of Medicine. Professor of Clinical Surgery, Vanderbilt University School of Medicine; Surgeon, Vanderbilt University and St. Thomas hospitals.

James Payton Leake, M.D.
United State Public Health Service, Washington, D.C.

Irvine MaGuarrie, M.D., Minneapolis

M. Edward Davis, M.D., B.S., Chicago
Associate Professor of Obstetrics and Gynecology at the University of Chicago Medical School. Attending obstetrician and gynecologist to the Chicago Lying-in Hospital, and attending gynecologist to the Albert Merritt Billings Hospital. Fellow of American College of Surgeons, Honorary Fellow of the Des Moines Academy of Medicine, Diplomate of the American Board of Obstetricians and Gynecologists, Fellow of the Chicago Gynecological Society, Fellow of the Central Association of Obstetricians and Gynecologists.

REGISTRATION DIRECTORY

Dr. C. H. Ewing, Larned, secretary of the Kansas Board of Medical Registration and Examination, has announced that a directory of Kansas physicians will be issued on approximately March 1, 1935. Listing will be alphabetically by counties, and under the annual registration act, only physicians licensed for 1934 can be shown. Dr. Ewing requests immediate registration by all physicians not now registered inasmuch as the directory will appear as an official roster of all persons licensed to practice medicine in this state.

BRINKLEY HEARING

Six past and present members of the Board of Medical Registration and Examination, and Drs. L. F. Barney, Kansas City; W. F. Bernstorf, Pratt, and M. C. Martin, Newton, were in Topeka from January 21-25, for a hearing in Federal Court on a pending injunction brought against the Board several years ago by John R. Brinkley.

Witnesses were mostly members of the Board at that time, events leading to revocation of Brinkley's license were presented, and briefs on points of law involved were submitted for later decision. Brinkley did not attend.

COUNCIL MEETING

The annual midwinter meeting of the Council was held jointly with the Executive Secretary Committee, and the Legislative Committee on January 15, in Kansas City.

Members present were: Drs. J. F. Hassig, Kansas City, president; W. F. Bowen, Topeka, retiring president; H. L. Snyder, Winfield, vice-president; H. L. Chambers, Lawrence, secretary; Geo. M. Gray, Kansas City, treasurer; R. T. Nichols, Hiawatha; L. F. Barney, Kansas City; E. C. Duncan, Fredonia; O. P. Davis, Topeka; J. T. Axtell, Newton; H. N. Tihen, Wichita; C. C. Stillman, Morganville; Alfred O'Donnell, Ellsworth; H. O. Hardesty, Jennings; C. D. Blake, Hays; C. H. Ewing, Larned; N. E. Melencamp, Dodge City; W. M. Mills, Topeka; W. F. Bernstorf, Pratt; C. C. Nesselrode, Kansas City; L. D. Johnson, Chanute; E. C. Morgan, Clay Center.

Major matters discussed were as follows: A committee from Saline County Medical Society composed of Drs. Ned Cheney, L. S. Nelson, and E. G. Padfield, all of Salina, outlined tentative plans for the 1935 state meeting to be held in Salina on May 8, 9, 10, which were approved. Authorization was given for immediate appointment of a committee on medical economics. A plan was adopted whereby councilors will assist in the development of business organizations in each county for local handling of business and economic matters even though mem-

bership may be desired in adjoining societies or group societies. Health insurance proposals, medical relief and legislation were discussed. Regular audits and a standardized accounting system were approved for the executive secretary office. Action was taken to invite county society officers to future midwinter meetings of the Council. Dr. Hassig was authorized to approve projects to be undertaken for 1935, and reasonable expenses incidental thereto. A resolution adopted unanimously provided that no expense accounts should be rendered to the Society for attendance at the meeting.

Upon completion of business, all members were invited to attend a dinner-dance given by the Wyandotte County Medical Society.

Complete details of the meeting, including data on other business and economic matters has been forwarded by bulletin to county secretaries for presentation at county society meetings.

DEATH NOTICES

Dr. C. M. Brown, 46 years of age, died at his home in Kansas City, on January 13. He was a graduate of the University Medical College, Kansas City, Mo., in 1913, and began his practice at Basehor, moving to Kansas City five years later where he practiced for sixteen years. He was a member of the Wyandotte County Medical Society and the Greater Kansas City Eye, Ear, Nose and Throat Society.

Dr. Truman G. Burris, 64 years of age, died at the Hatcher Hospital in Wellington, January 9, following a serious fall on the morning of December 29, which ultimately caused his death. He was a graduate of the Northwestern Medical College, St. Joseph, Mo., in 1893 and then started practicing in Allen. Later he went to Ottawa for a time, and had been practicing at Conway Springs for twenty-seven years at the time of his death. He was a member of the Sumner County Medical Society.

Dr. J. Z. Hoffman, 73 years of age, died in Wichita on January 28, of coronary thrombosis. He was born in Maytown, East Donegal Township, Pennsylvania, and received his medical degree from the University of Pennsylvania, in 1886. He went to Wichita in 1888 and established a practice there. He was a former president of the Sedgwick County Medical Society and secretary of the old South Kansas Medical Society for many years. He was elected to honorary membership in the Sedgwick County Medical Society at the time of his retirement from active practice in 1930.

Dr. A. B. Jeffrey, 55 years of age, died in Christ's Hospital in Topeka on January 25. He underwent an abdominal operation January 17 and complications developed, causing his death. He was born in Valparaiso, Chile, and came to the United States four years later. He was graduated from the Northwestern University Medical College in 1906, and came to Topeka in 1907 and established a practice. He served a year in a British war hospital at Epson Downs, England, during the World war.

Dr. Frank Lightfoot, 84 years of age, died at St. Rose Hospital in Great Bend on January 8. He had made his home at the hospital for the past year and had been city health officer for the past year and a half. He was born in Chatham, Kent County, England, February 14, 1850. He came to America in 1885 and went to Milwaukee, Wis., to live but moved to Oshkosh, Wis., six months later. He was a graduate of the Rush Medical College in 1876 and practiced his first year in Nenah, Wis. He went to Ellinwood in 1878 and was there six months and finally settled at Great Bend, where he practiced up until four years ago when his health failed and he was forced to give up his practice.

MEMBERS

Dr. Robert M. Carr has opened an office in Junction City upon returning from Chicago, where he spent the past six months in the Passavant Hospital, following his interneship at the Kansas City General Hospital.

Dr. D. D. DeNeen, Iola, has been elected to the Allen County Medical Society.

Dr. Osee May Dill has been appointed to fill a vcaancy left by Dr. Marjorie Eberhart in the student health department at the Kansas State Agricultural College. She is a graduate of the school of medicine at Indiana University and was stationed for six years at a hospital and women's industrial home of the United Provinces of India. She served an interneship in Detroit and took post graduate work at Tulane University at New Orleans. For the past several years she has been practicing medicine in Indiana.

Dr. Armand Fischer has returned from a ten-day trip to New York where he attended a clinical orthopedic convention.

Dr. W. A. Grosjean, formerly of Winona, has returned from duty as a reserve officer in the Army Medical Corps near Hot Springs, Ark., and has established an office in Colby.

Drs. H. F. Hyndman, F. J. McEwen, and H. W. Palmer, all of Wichita, have recently been elected to membership in the American College of Physicians.

Drs. Ellis B. McKnight, Alma, and Clifton Hall, Topeka, have been elected to membership in the Shawnee County Medical Society.

Dr. J. M. Mott, Lawrence, city health officer, has supervised a campaign to have all children in the city immunized against typhoid fever.

Dr. C. E. Phillips opened his new office in Pratt on December 31, having recently moved there from Liberal.

Drs. T. W. Reid, Gardner, and R. M. Isenberger, Overland Park, were recently elected as members of the Johnson County Medical Society.

Dr. H. R. Ross, Junction City, child health director, State Board of Health, spoke before the Lions club in Kansas City on December 27. His subject was "Full Time Health Program for Kansas Communities." Dr. Ross' talk was preliminary to work to be done in formulating a preventative health campaign in that city and county. Others appearing on the program were: Dr. Lawrence Growney, county physician; Dr. H. W. Kassel, city health head; Dr. Fred Richmond, secretary of the Kansas Dental Society, and Dr. H. L. Regier, president of the Wyandotte County Medical Society, all of Kansas City.

Dr. L. H. Sarchet, county health officer, Wellington, met with the city commissioners of Caldwell to discuss a

milk ordinance for that city. Dr. D. E. Kisecker, Caldwell health officer, also attended the meetings.

A symposium on Coronary Artery Disease was held at the Menninger Sanitarium, Topeka, on January 23. Dr. Morris Ginsberg, and Prof. O. O. Stoland, of the University of Kansas, Lawrence; Dr. Robert Koritschoner, Menorah hospital, Kansas City, and Dr. Karl A. Menninger, Topeka, were the principal speakers on the program. Fifty-five physicians from White City, Miltonvale, Hays, Valley Falls, Emporia, Greensburg, Salina, Holton, Junction City, Horton, Lawrence, and Luray, Kansas; St. Joseph, Mo.; Normal, Okla.; Denver, Colo.; and Clovis, New Mexico, attended the dinner which preceded the program.

ELLIS DOCTORS CLUB

A doctors club has been organized by the thirteen physicians of Ellis county, whose main purpose is the establishment of relations with the county commissioners regarding the care of the indigent, and other business matters. Dr. J. R. Betthauser is president, and Dr. H. R. Bryan, secretary-treasurer, and meetings are held montly. All the members also have membership in the Central Kansas Society. At a meeting on January 21 in Hays, Dr. C. D. Blake, Hays, gave a report of the Council meeting, held in Kansas City on January 15. Following this, a discussion of the basic science bill was held and it was suggested that the appointed members of the examination board should be chosen from the staff of basic science instructors of Kansas colleges.

BOOK REVIEWS

SURGICAL CLINICS OF NORTH AMERICA. October 1934. Lahey Clinic Number. Published by W. B. Saunders Co., Philadelphia. The most interesting part of this book for general surgeons—and valuable to internists as well—is the group of papers on the stomach, gall bladder, and thyroid. Included in these one finds an evaluation of symptoms in the diagnosis of carcinoma of the stomach; an interesting report of the postoperative course of three patients who had submitted to total gastrectomy; a concise discussion of the treatment of peptic ulcers, and hemorrhage from ulcers, including both surgical and medical treatment; a plan for the management of painless jaundice, of gallstones, and of postoperative bleeding in jaundiced patients; and the essentials of the diagnosis and treatment of toxic goiter, emphasizing those causes associated with cardiac disease and those in patients over sixty years of age. Making the volume a well rounded Clinic number, there are also papers on lung abscess, empyema, trigeminal neuralgia, brain abscess, subtemporal decompression, fractures of the pelvis and of the bones of the hands and feet, plantar warts, bladder neck contracture in women, and intratracheal anesthesia. The volume is a credit to both the authors and the publishers. —O. R. C.

NEW BOOKS RECEIVED

THE 1934 YEARBOOK OF PEDIATRICS, by Dr. Isaac A. Abt, professor of pediatrics, Northwestern University Medicine School, and Dr. Arthur F. Abt, associate in pediatrics, Northwestern University. Published by The Year Book Publishers, Chicago, at $2.50 per copy.

SCULTURE IN THE LIVING, by Dr. Jacques W. Maliniak, plastic and reconstructive surgeon at Sydenham Hospital, New York City; St. Peter's Hospital, New Brunswick, N. J.; Beth Israel Hospital. Newark, N. J. Published by The Lancet Press, New York, at $3.00 per copy.

THE CRIPPLED AND THE DISABLED, by Dr. Henry H. Kessler, medical director of the New Jersey Rehabilitation Commission. Published by the Columbia University Press, at $4.00 per copy.

HUMAN ANATOMY—First and Second Dissection by Dudley J. Morton, associate professor of anatomy, College of Physicians and Surgeons, Columbia, University. Published by the Columbia University Press, New York City, at $6.00 per copy.

OBSERVATIONS OF A GENERAL PRACTITIONER, by Dr. William N. Macartney. Published by Richard G. Badger, Boston.

HOW TO PRACTICE MEDICINE, by Dr. Henry W. Kemp, New York. Published by Paul B. Hoeber, Inc., New York.

MORBIDITY REPORT

New communicable disease cases in the state as compared with last month are reported by the Kansas State Board of Health as follows:

Disease	Month ending January 19	Month ending December 22
Measles	1649	973
Chickenpox	684	625
Scarlet fever	414	278
Pneumonia	480	198
Whooping cough	197	191
Syphilis	90	145
Mumps	279	126
Gonorrhea	41	110
German measles	398	77
Tuberculosis	56	70
Diphtheria	49	37
Smallpox	8	9
Typhoid fever	8	7
Meningitis	6	7
Influenza	52	7
Cancer	8	6
Pink-eye	5	4
Vincent's angina	2	4
Undulant fever	5	4
Scabies	2	4
Encephalitis	4	3
Poliomyelitis	0	2
Tularaemia	12	2
Tetanus	1	1
Rabies	0	1

COUNTY SOCIETIES

The members of the Allen County Medical Society held a dinner and meeting January 17 in Iola followed by a program on which the guest speakers were, Dr. D. V. Conwell, and Dr. L. E. Peckenschneider, both of Halstead. Dr. L. D. Johnson and Dr. James A. Butin, of Chanute were guests of the society.

Dr. H. L. Charles, Atchison, was elected president of the Atchison County Medical Society at the January meeting. Drs. Chas. H. Finney, and T. E. Horner, were

(Continued on Page 82)

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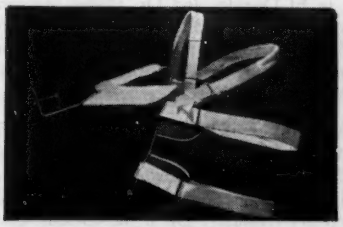

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respectively elected vice-president and secretary-treasurer, for the coming year.

The Butler-Greenwood County Medical Society met on January 11 in El Dorado, and Dr. Philip Morgan, Emporia, gave a paper on "Heart Disease." Newly-elected officers for 1935 are as follows: Dr. G. E. Kassebaum, El Dorado, president; Dr. B. J. Cabeen, Leon, vice-president; Dr. W. E. Janes, Eureka, secretary-treasurer.

Dr. W. R. Morton, Green, was elected president of the Clay County Medical Society at a meeting on December 12, in Clay Center. Other officers elected were: Dr. J. S. Scott, Clifton, vice-president; Dr. E. C. Morgan, Clay Center, secretary-treasurer; Dr. F. R. Croson, Clay Center, censor and delegate to the state meeting. A paper on "Ectopic Gestation", by Dr. Robert Wilson, Kansas City, and one on "Hoarseness", by Dr. Homer A. Beal, Kansas City, Mo., were presented and a discussion of these papers was held by members of the society.

At a meeting of the Cloud County Medical Society in January at Concordia, Dr. L. E. Haughey, Concordia, was elected president; Dr. C. D. Kosar, Concordia, vice-president; Dr. J. M. Porter, Concordia, secretary-treasurer for the coming year. Drs. P. T. Bohan, Earl C. Padgett, and F. C. Helwig, all of Kansas City, Mo., spoke before a meeting of the society on January 17 in Concordia.

Dr. A. N. Gray, Burlington, was elected president and Dr. H. C. Tomlinson, Burlington, secretary-treasurer, of the Coffey County Medical Society for the coming year at a meeting in Burlington on January 17. Dr. E. C. Duncan, Fredonia, was the guest speaker of the evening. The secretary reports that regular monthly meetings will be held during 1935.

Dr. F. L. Holcomb, Coldwater, was elected president of the Comanche County Medical Society for the coming year. Dr. H. F. Craig, Protection, will be the vice-president, and Dr. R. A. J. Shelley, Coldwater, secretary-treasurer.

Members of the Cowley County Medical Society met in Winfield on January 20. Dr. Clifton Hall, Tuberculosis Division, State Board of Health, Topeka, gave a talk on skin tests for tuberculosis. Drs. H. H. Jones, M. J. Dunbar, of Winfield, and Dr. W. G. Weston, Arkansas City, also gave papers.

The Doniphan County Medical Society has reported that they will hold regular monthly meetings during the coming year. Dr. C. E. Waller, Troy, will preside as president, Dr. R. R. Clutz, Bendena, vice-president, and Dr. Ray Meidinger, Highland, as secretary-treasurer.

At a meeting of the Ford County Medical Society Dr. R. D. Russell, Dodge City, was elected president; Dr. W. F. Pine, Dodge City, vice-president; Dr. C. L. Hooper, Dodge City, secretary-treasurer; Dr. C. E. McCarty, Dodge City, censor. Dr. Hooper will be the delegate to the state meeting.

The Golden Belt Medical Society held their 181st quarterly meeting in Abilene on January 10, as a joint meeting with the Dickinson County Society. The program started at 3:00 p. m. and concluded with a dinner at 6:30 p. m. The following speakers and subjects appeared on the program: Dr. Barrett Nelson, Manhattan, "Breast Tumors", with a discussion conducted by Dr. C. D. Blake, Hays; Dr. M. G. Sloo, Topeka, "Pneumonia", and discussion by Dr. George F. Davis, Kanopolis; Dr. Charles Rombold, Wichita. "The Treatment of Fractures with Local Anesthesia", and discussion by Dr. M. E. Pusitz; Dr. J. M. Porter, Concordia, "The Changing Concept of Heart Disease", disccussion by Dr. E. M. Sutton, Salina; Mr. A. M. Tracewell, Kansas City, Mo., "As a Layman Sees the Doctor"; Dr. Fred J. McEwen, Wichita, "Myocardial Failure and Edema", discussion by Dr. J. G. Stewart, Topeka. Dr. Earl Vermillion, Salina, is the president of the society and Dr. J. L. Lattimore, Topeka, is secretary.

The annual dinner and election of officers of the Johnson County Medical Society was held in Olathe on December 10. Dr. Roy Mills, Kansas City, Mo., guest speaker of the evening, talked on "Digitalis and Heart Disease". Officers elected were: Dr. James B. Weaver, Kansas City, president; Dr. A. S. Reece, Gardner, vice-president; Dr. D. E. Bronson, Olathe, secretary; Dr. Edmer Beebe, Olathe, treasurer; Dr. P. L. Jones, Lenexa, censor. At the meeting on January 7, a committee was appointed by the president to study state medicine and insurance contracts for a report at the next meeting. Dr. Lawrence E. Wood, University of Kansas, gave a paper on "Bronchiectasis."

Dr. G. W. Hay, Parsons, was elected president of the Labette County Medical Society in Parsons on December 26. Drs. Charles Miller, Parsons, and L. H. Proctor, Parsons, were respectively elected vice-president and secretary-treasurer of the society. Dr. George Knappenberger, Kansas City, Mo., was the guest speaker on the program and presented a discussion on "Intestinal Diseases" and described three clinical cases.

A program including speeches by Dr. L. F. Barney, Kansas City; Dr. E. C. Duncan, Fredonia; Dr. J. F. Hassig, Kansas City, and Dr. J. W. Kelly, Louisburg, was given at the meeting of the Linn County Medical Society in LaCygne on January 10.

The Meade-Seward County Medical Society met on January 17 in Liberal and elected the following officers for 1935: Dr. E. J. McCreight, Liberal, president; Dr. A. L. Hilbig, Liberal, vice-president; Dr. W. N. Lemmon, Liberal, secretary-treasurer. The basic science bulletin of the Legislative Committee was discussed and committees appointed for action on this bill.

The following officers were elected to office at a meeting of the McPherson County Medical Society in McPherson during January: Dr. G. R. Dean, president; Dr. V. C. Price, vice-president; Dr. A. M. Lohrentz, secretary-treasurer, all of McPherson.

Members of the Montgomery County Medical Society elected the following officers at their annual banquet and meeting in Independence on December 18: Dr. O. W. Ellison, Independence, president; Dr. C. O. Shepard, Independence, secretary-treasurer; and Dr. W. S. Hudiburg, Independence, censor. After the business meeting a play was given by the students of the High School Dramatic club.

Members of the Neosho County Medical Society elected

(Continued on Page 84)

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officers for the coming year at their January meeting in Chanute, as follows: Dr. L. D. Johnson, Chanute, president; Dr. Luther Cone, Chanute, vice-president; Dr. E. C. Bryan, Erie, secretary-treasurer.

Dr. T. L. Foster, Larned, was elected president of the Pawnee County Medical Society at their January meeting in Larned. Dr. C. E. Sheppard, Dr. Mary H. Eliot, and Dr. John A. Dillon, all of Larned, were respectively elected, vice-president, secretary-treasurer, and state meeting delegate.

Drs. Hunter Duvall, Harold R. Barnes, and W. N. Mundell, all of Hutchinson, were elected respectively president, vice-president and secretary-treasurer, of the Reno County Medical Society for the coming year.

A program consisting of papers by Dr. V. L. Pauley, Wichita, on "Trans-urethral Prostatic Resection" demonstrated with lantern slides, "The Functioning of the State Medical Society", by Dr. C. D. Blake, Hays, and "State Medical Society" by Dr. C. H. Ewing, Larned, was presented at the Rush-Ness Medical Society meeting in Alexander on January 16. The following officers were elected for the coming year: Dr. N. W. Robinson, Bison, president; Dr. T. F. Brennan, Ness City, vice-president; Dr. W. J. Singleton, LaCrosse, secretary-treasurer.

Dr. N. P. Sherwood, professor of bacteriology, University of Kansas, was the guest speaker at the regular meeting of the Shawnee County Medical Society in Topeka on January 7. He discussed "Hypersensitiveness and Immunity to Tuberculosis".

The Sumner County Medical Society held a meeting, preceded by dinner, on December 20 in Wellington. Dr. W. H. Neel, Wellington, was elected president; Dr. E. F. Clark, Belle Plaine, vice-president; Dr. Emery Trekell, secretary-treasurer; Dr. J. A. Howell, censor and delegate to the state meeting. Speakers on the program were Dr. R. C. McIlhenny, Conway Springs, who talked on "Auricular Fibrillation Complicated with Cerebral and Pulmonary Emboli", and Dr. Emery Trekell, who spoke on "Tetanus Diagnosis and Treatment".

At a meeting of the Washington County Medical Society in Washington on January 8, Dr. L. J. L'Ecuyer, Greenleaf, spoke on "Vitamins" and Dr. Z. H. Snyder, Greenleaf, spoke on "Diets". Indigent care was discussed and the society decided to take the matter before the county commissioners to work out a plan for the care of these people.

Dr. C. H. Kinnaman, epidemiologist, State Board of Health, Topeka, was the guest speaker at the regular meeting of the Wilson County Medical Society on January 7, in Fredonia. Dr. F. M. Wiley, Fredonia, read a tribute to the late Dr. John L. Morehead, Neodesha, a former member of the society.

The installation of the officers of the Wyandotte County Medical Society was held at the Fortieth Annual Dinner dance of the society on January 15, in Kansas City at Lake Quivira clubhouse. The following officers were installed: Dr. H. L. Regier, Kansas City, president; Dr. G. H. Hobson, Kansas City, vice-president; Dr. Lewis W. Angle, Kansas City, secretary; Dr. Thomas Richmond, Kansas City, treasurer. Mr. Tom Collins, Sunday editor of the Kansas City Journal-Post, was the guest speaker and gave a humorous talk on "Care and Treatment of Husbands and Wives". On January 16 the program consisted of talks by Dr. W. W. Abrams, Kansas City; Dr. E. S. Miller, Kansas City; Dr. J. W. Faust, and Dr. J. H. Rabin, Kansas City. The next meeting was held on January 23 and the speakers for the program were Dr. H. W. King, Kansas City, and Dr. J. H. Ogilvie, Kansas City, Mo.

The Cowley County Medical Society held its annual dinner meeting January 17 in Winfield. The following officers were elected for 1935: Dr. R. L. Ferguson, Arkansas City, president; Dr. Howard Snyder, Jr., Winfield, vice-president; Dr. Delbert A. Ward, Arkansas City, secretary-treasurer. The program included addresses made by Dr. Charles Moran, Arkansas City; Dr. H. L. Snyder and Dr. C. C. Hawke, of Winfield.

KANSAS MEDICAL AUXILIARY

The members of the Sedgwick County Auxiliary entertained the state president, Mrs. William Gordon Emery, of Hiawatha, with a dinner party in Wichita at their January meeting. Mrs. G. A. Spray, president of the Sedgwick auxiliary, introduced Mrs. Emery who gave a short talk. Mrs. C. N. Johnson reported on a Hygeia magazine project in connection with the rural schools and mother's study clubs in Wichita. A review of "The Biography of Richard Wagner" was given by Mrs. Myra B. Brooks, of Wichita.

The Wilson County Auxiliary held a meeting on January 7 in Neodesha, preceded by a banquet with the physicians. Mrs. B. P. Smith, of Neodesha, read a paper on "Health Work" and a general discussion followed.

ANNOUNCEMENTS

The American Medical Association has arranged for a series of broadcasts over various networks starting in January. Physicians are requested to bring these broadcasts to the attention of their patients, and inform them that copies of the talks may be had in booklet form upon request. A talk by Dr. W. W. Bauer, on "Heart Valves" will be given on a western network of the Columbia Broadcasting System, February 14, on the Educational Forum from 4:30 to 4:45 p. m., central standard time. Through courtesy of the National Broadcasting Company a program including music and three speakers will be heard at 6:00 p. m., central standard time, on February 18. Speakers and their topics are as follows: "Advancement of Medical Education", Dr. Walter A. Bierring; "The Prolongation of Life", Dr. Ray Lyman Wilbur; and "The Battle Against Tuberculosis", Dr. Kendall Emerson.

The American Congress of Physical Therapy announces a one-day session of its Mid-Western Section, to be held in Madison, Wis., March 12, 1935. The morning session will be devoted to hospital clinics and the afternoon session to scientific papers. The evening program will be conducted under the auspices of the section and the Dane County Medical Society.

(Continued on Page 86)

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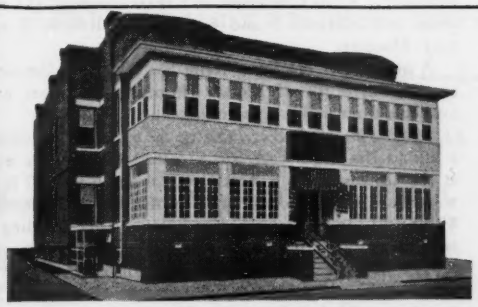

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A REMINISCENSE OF PIONEER MEDICINE

E. E. Morrison, M.D.
Great Bend, Kansas

In the early eighties a doctor seeking fame and fortune in the new west, located in a small town in Barton County, Kansas. This man of medicine brought with him the reputation of an "army surgeon". He had served his country in that capacity during the Civil War.

It was related of him by contemporaries who had seen him do minor surgery, that when it became necessary during the course of an operation to cease cutting while controlling hemorrhage, he held his knife between his teeth.

The writer gave little credence to the story until he was told of another "army surgeon" in a town at some distance, who used the same technique. At about the same time he read "Reminiscenses of the Civil War", written by Carl Schurz and published in Scribners. Carl Schurz gave a vivid description of the care of the wounded after a certain great battle. He noted that the surgeons held their knives between their teeth when their hands were otherwise occupied.

One day the "army surgeon" walked into a colleague's office with all the enthusiasm of a man of science who has discovered something hitherto unknown. He carried in his hand a specimen.

He said: "You know ———— ———— has been deathly sick for about three months. Two or three weeks ago he began to develop an enormous boil on his belly. This morning I made a free incision where it was pointing. I have never seen so much pus come out of anything and I have never smelled anything so bad. This specimen floated out in the pus. What is it?"

The specimen had the appearance of a defunct shrimp. The colleague only a few years out of the dissecting room recognized a self amputated appendix vermiformis.

BASIC SCIENCE PROPOSAL

A basic science act, patterned after the Minnesota law, was introduced into the Senate on January 10, by Senator Henry Diefendorf of Riley.

It contains provision for an examining board composed of one physician, one osteopath, one chiropractor, and two college professors to administer a preliminary examination to entrants into the healing field in anatomy, physiology, bacteriology, pathology, hygiene, and chemistry. Christian Scientists, optometrists, dentists, chiropodists and several other groups are excepted inasmuch as it is aimed at healers who are chiefly relied upon.

The bill was referred to the Senate committee on Temperance and Public Health, of which members are Walter Jones, Hutchinson; M. A. Bender, Holton; J. B. Carter, M.D., Wilson; Thale Skovgard, Greenleaf; Charles Krouse, Onaga; and Claud Hansen, Jamestown. A hearing before the committee was held on January 24 at which meeting Bishop James Wise of the Episcopal Church, Rev. John Lander of the Kansas Hospital Association, Mr. James Malone representing Catholic Hospitals, Dr. C. L. Miller of the State Board of Health, Mr. William Drennan of the Kansas City Chamber of Commerce, Mr. W. M. Newmark of the Kansas Pharmaceutical Association, Dr. C. C. Nesselrode and Dr. E. C. Duncan appeared in favor of the bill. Only three chiropractors appeared as opponents.

The bill is still in committee as we go to press, and vote upon same is expected during the week of February 10. Full details of action taken by the Society has been forwarded to county secretaries for presentation at meetings.

MEDICAL SCHOOL

The Porter Scholarship was awarded Mr. Lee H. Leger, a senior, ranking highest scholastically.

Dr. E. A. Doisy, Professor of Biochemistry, St. Louis University School of Medicine, St. Louis, Missouri, will give the Porter lectures on April 23 and 24 at the University of Kansas Hospital and the University of Kansas at Lawrence. His subject will be "Sex Hormones".

The Wisconsin Surgical Club will be the guest of Kansas City surgeons February 4, 5 and 6. They will spend February 4 at the University of Kansas Hospital, at Lawrence, and February 5 and 6 at the hospitals of Kansas City, Missouri.

A new major operating room has just been completed at the University of Kansas Hospital. There are now available three major operating rooms.

Senator H. M. Beckett, Olathe, Kansas, has introduced a bill to the Legislature for $75,000 for a negro ward at the University of Kansas Hospital and $10,000 for a warehouse. The Board of Regents has recommended $200,000 for a negro ward and also a clinic building to take the place of the present wooden barracks buildings.

The Mid-Western Section of the American College of Surgeons is meeting in conjunction with the Kansas City Southwest Clinical Society on March 11, 12, and 13 at the President Hotel, Kansas City, Missouri. Surgical clinics will be given at the University of Kansas Hospital on March 12 and 13 for the guests of this meeting.

The Kansas City Society of Ophthalmologists and Otorhinolaryngologists held their meeting at the University of Kansas Hospital on January 17. Surgical clinics were given by members of the medical school faculty.

EXCHANGES

Charles W. Mixer, self-styled cancer specialist of Hastings, Mich., is dead of cancer on the eve of his prosecution on charges of violating the Federal food and drugs act. His principal medicine "Mixer's Cancer and Scrofula Syrup", composed of potassium iodide, senna, licorice, yellow dock root, sarsaparilla, wintergreen, glycerine, alcohol and sugar syrup, had for a long time evaded the Federal law, until Food and Drug Inspectors intercepted a shipment to Chicago, in July, 1932, and based the recent case on it. This step was necessary, as the Federal government can bring cases under the Food and Drug Act against interstate shipments only.

Even during Mixer's illness, his office force continued to sell and ship the so-called "cancer cure", which fact led the Government to request that the trial proceed without delay, in spite of the defense attorney's plea that the defendant was seriously ill and could not stand trial. Mixer's death has now blocked the suit, which will necessarily be dismissed.

Reputable physicians are unanimously of the opinion that there is no medicinal cure for cancer. The manufacturer employed a physician to care for his own cancer. By correspondence he "diagnosed" his unseen patients,

(Continued on Page 88)

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Neurosis is an all-inclusive term applied to functional conditions and, many times, to cases where the diagnosis of organic pathology is obscure.

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We feel that the diagnosis must be made as any other disease entity, not by the absence of objective symptoms, but by the subjective symptoms presented. Thus will fewer mistakes be made.

The neurotic patient presents several constant symptoms. Firstly, and most important, is a great willingness—nay anxiousness—to discuss their symptoms. They go into great detail and try not to forget any detail. Secondly, they all are nervous and weak and most cases suffer from insomnia. Thirdly, there is always some break in their chain of symptoms or events which is illogical, so that the doctor feels the case is a little unusual or organically impossible.

Of course a neurosis may manifest itself in any organ and any symptoms may be complained of, but the most common are headache—usually midline—shortness of breath and tachycardia, indigestion and constipation. There may, of course, be many others in the several patients or in one individual.

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frequently without even a statement from them of their condition or symptoms, and, when they finally ordered some of his preparations, he sent them something else selling for slightly less, carefully explaining that his experience had shown it would be better to take this other medicine until the system became accustomed to the treatment. This procedure left a so-called "credit" which was not enough for additional treatment, but which Mixer used as an inducement to the patient to purchase more on the payment of a little more money. In this manner, he dealt mostly with poverty-stricken people unable to afford hospital care or a physician's attention.

In his lengthy correspondence with each patient, there usually occurred periods when the spirits of the patient rose above the gloom of discouragement ordinarily filling the letters, and Mixer used these cheerful and optimistic letters as testimonials of the worth of his "remedies", carefully suppressing the others.—United States Department of Agriculture Bulletin.

In response to an inquiry, Mr. Albert Stump, attorney for the Indiana State Medical Association, has written the following:

"It has been held in a number of cases that where a physician undertakes to treat a charity patient his responsibility to the patient for any failure to use proper care and skill is on exactly the same basis as it would be for a paying patient. That may seem a bit harsh, but on further consideration, it will be seen that it is a just principle of law.

"When a physician undertakes to treat a person, he impliedly brings to the treatment of that person the obligation to use proper skill and care and not to neglect the patient to his damage, whether the patient is able to pay or not. But, on the other hand, he does not have to accept any patient. There are no conditions apparently, from the decisions of the courts, under which a physician can be compelled to accept a patient. However, when he does accept a patient, his obligation to that patient is not then dependent upon whether it is a paying patient or not.—Jrl. Ind. Med. Assoc.

The question "why an auxiliary" is not infrequently asked. The question "why a wife" constitutes as good an answer as any.

Medical organization went on for nearly a century in a state of single blessedness. Like an old bachelor it never seemed to realize that it was doing many odd jobs which could be done by a helpmate and that its standing in the community was being sorely neglected. Then one spring morning some ten years ago came a comely miss, who announced herself as Mrs. Auxiliary, rolled up her sleeves, nudged Mr. Medicine in the side, and said "shove over—I'm going to pitch in, help get your house in order, and I'm going to be your partner."

The old fellow, unaccustomed to team work, grumbled and still sputters at times, but down in his heart realizes how efficient she has been. During the years she has grown and developed into a buxom housewife, on whom he has learned to depend more and more. She has been helpful in more ways than he realizes and she can do more and more for him as times goes on and he learns more to rely on her. Her main job is to improve his standing in the community. He has been a hermit and has covered up his sterling qualities and his good deeds. He has had few contacts with others and she can do much in bringing about a better appreciation of his work and of his worth.—(R. S., in Wisconsin Med. Jour.)

In compiling the current issue of the American Medical Directory, some interesting notes were collected relative to physicians of advanced age, many of whom are still in practice. The names of ten doctors were collected who were born between 1828 and 1838, so that the oldest of these men is 106 years of age and the youngest 96. They graduated in medicine from the years 1852 to 1878. Of the four men who are still in practice, the years of practice vary from eighty-one to sixty-nine. These are, of course, remarkable. It is significant that by far the majority of these men of advanced years live in small communities. The Journal is interested in receiving records of physicians who are more than 95 years of age.—Jour. A.M.A.

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For the patient who cannot REST

RESTLESSNESS, irritability and sleeplessness, in whatever condition these symptoms occur, retard the patient's recovery on the road to health. Just a few nights of peaceful sleep with the aid of a suitable hypnotic generally enhance other therapeutic measures.

Ipral Calcium Squibb (formerly called "Ipral") is a satisfactory hypnotic and sedative because:

1—It is an effective sedative in small doses and may be safely and advantageously used in larger doses as a hypnotic.

2—Its action begins fairly promptly after administration and continues over a period of hours.

3—It acts chiefly on the central nervous system, having a selective action on the higher cerebral centers.

4—It produces sleep, which closely resembles the normal, from which the patient awakens generally calm and refreshed.

5—No digestive disturbances accompany its administration, nor in therapeutic doses is it depressant to the heart or blood pressure.

6—It is quite rapidly broken down and eliminated, and when the dose is repeated, undesirable cumulative effects may be avoided by proper dosage regulation.

Ipral Calcium (Calcium ethylisopropylbarbiturate) is supplied in ¾-grain and 2-grain tablets in bottles of 100 and 1000. The 2-grain tablets are also supplied in vials of 10 tablets. Ipral Calcium is available too in 1-ounce bottles.

Tablets Ipral Sodium—4 grains are supplied for pre-anesthetic medication.

Tablets Ipral - Amidopyrine provide both an analgesic and a sedative effect.

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MANUFACTURING CHEMISTS TO THE MEDICAL PROFESSION SINCE 1858.

Makers of INSULIN SQUIBB

—*for that better taste and fragrant aroma*

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But there's another and greater difference—Turkish is the most spicy and aromatic tobacco in the world.

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—you have a milder cigarette, a better-tasting cigarette.

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